CDP-C75ES/C85ES/C705

SERVICE MANUAL

US Model
Canadian Model
CDP-C75ES

US Model
E Model
CDP-C85ES

US Model
Canadian Model
AEP Model
E Model
Australian Model
CDP-C705

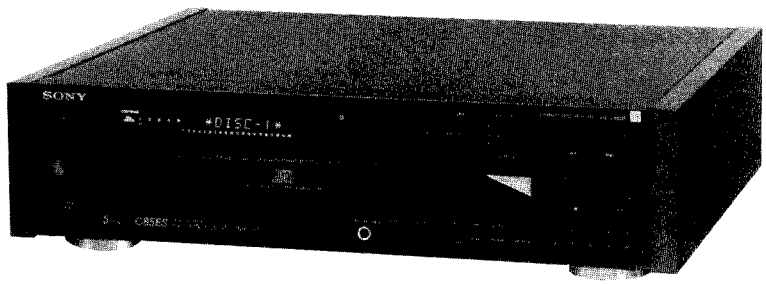


Photo : CDP-C85ES

SPECIFICATIONS

Compact Disc Player

Frequency response	2 Hz – 20 kHz (±0.3 dB)
Signal to noise ratio	More than 105 dB
Dynamic range	More than 98 dB (CDP-C75ES/C85ES) More than 95 dB (CDP-C705)
Harmonic distortion	Less than 0.0025 % (CDP-C85ES) Less than 0.003 % (CDP-C75ES) Less than 0.0035 % (CDP-C705)
Channel separation	More than 105 dB (CDP-C75ES/C85ES) More than 100 dB (CDP-C705)

Outputs

LINE OUT(FIXED) (phono jacks)	Output level 2 V (at 50 kiloohms) Load impedance over 10 kiloohms
LINE OUT (VARIABLE) (phono jacks)	Output level max 2 V (at 50 kiloohms) Load impedance over 10 kiloohms
DIGITAL OUT (OPTICAL) (optical output connector)	Wave length 660 nm Output level -18 dBm
HEADPHONES (stereo phone jack)	Output level max. 15 mW Load impedance 32 ohms

General

Power requirements	AC 120 V, 60 Hz
Power consumption	13 W
Dimensions (w/h/d)	Approx. 470 × 125 × 385 mm ($18^5/_8 \times 5 \times 15^1/_4$ inches) (CDP-C85ES) Approx. 430 × 125 × 385 mm ($17 \times 5 \times 15^1/_4$ inches) (CDP-C75ES/C705) Including projecting parts and controls
Weight	Approx. 8 kg (17 lbs 11 oz), net (CDP-C85ES) Approx. 7 kg (15 lbs 7 oz), net (CDP-C75ES) Approx. 6kg (13lbs 4oz), net (CDP-C705)

Remote Commander RM-D706

Remote control system	Infrared control
Power requirememts	3 V DC with two size AA batteries (IEC designation R6)
Dimensions	62 × 20 × 175 mm (w/h/d) ($2^1/_2 \times {}^{13}/_{16} \times 7$ inches)
Weight	126 g (4.5 oz) including batteries

Supplied Accessories

Connecting cord
(2 phono plugs ↔ 2 phono plugs) (1)
Remote commander (1)
Size AA batteries (2)
Screws (4) (CDP-C85ES only)

Design and specifications subject to change without notice.

MICROFILM

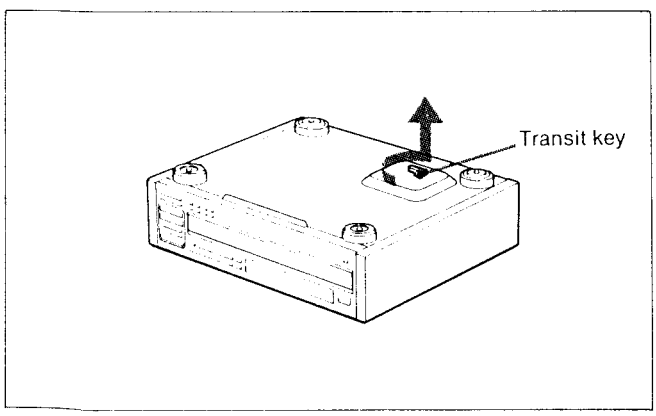
COMPACT DISC PLAYER

SONY®

TABLE OF CONTENTS

Section	Title	Page
	Specifications	1
1.	GENERAL	
	Location of Controls	5
2.	ADJUSTMENTS	
	2-1. Mechanical Adjustments	6
	2-2. Before Adjustments	6
	2-3. Service Mode	7
	2-4. Electrical Adjustments	8
3.	DIAGRAMS	
	3-1. Semiconductor Lead Layouts	10
	3-2. Circuit Boards Location	10
	3-3. Block Diagram	11
	3-4. IC Block Diagrams	14
	3-5. Printed Wiring Boards – Main Board –	16
	3-6. Schematic Diagram	21
	3-7. Printed Wiring Boards – Display Board –	26
4.	EXPLODED VIEWS	31
5.	ELECTRICAL PARTS LIST	35

Note on the Transit Key

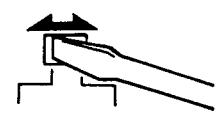


The transit key on the bottom exterior of the unit protects the optical system against shock during transportation. Before operating the CD player, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, replace the key in its original hole and lock it in place.

Adjusting Operating Voltage

For the customers of the model equipped with the voltage selector (E model)
Check that the voltage selector is set to the local power line voltage. If not, set the selector to the correct position before connecting AC power cord to a wall outlet.



110 – 120 V 220 – 240 V

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

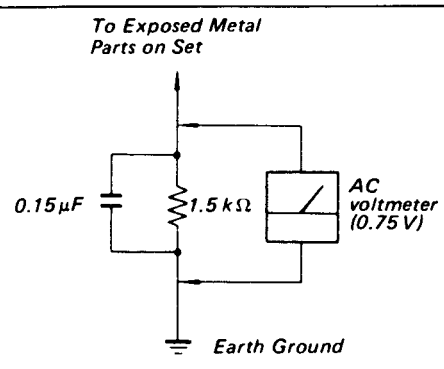
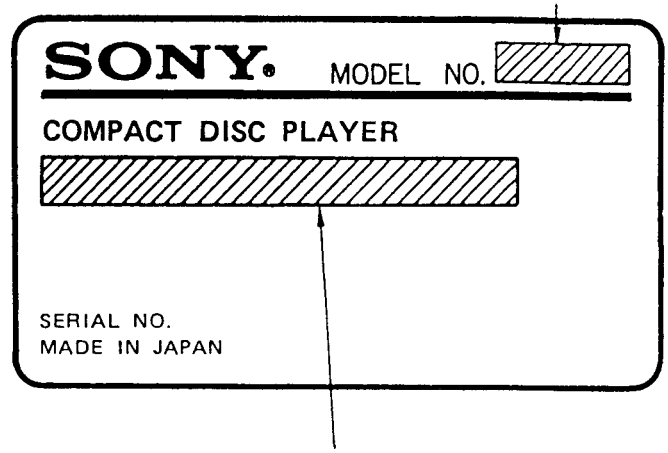


Fig. A. Using an AC voltmeter to check AC leakage.

MODEL IDENTIFICATION
– Specification Labels –

CDP – C75ES
CDP – C85ES
CDP – C705



US, Canadian model : AC 120V 60Hz 13W
AEP model : AC 220V 50/60Hz 13W
E model : AC 110 – 120, 220 – 240V 50/60Hz 13W
Australian model : AC 240V – 50/60Hz 13W

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties
   - Material: GaAlAs
   - Wavelength: 780 nm
   - Emission Duration: continuous
   - Laser Output: max. 44.6 μW*

     * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optiocal Pick-up Block (including APC borad).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-didoe data
   - Materiale: GaAlAs
   - Bølgelængde: 780 nm
   - Udstråling: Kontinuerlig
   - Laseroutput: Max. 0,4 mW*

     * Målt i 1,6 mm afstand fra overfladen af objektivlinsen på den optiske pick-up enhed.

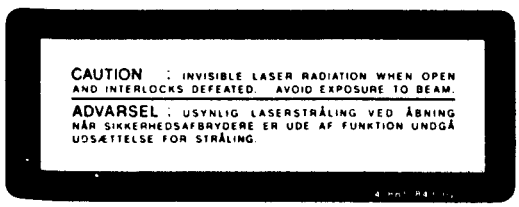
   - Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laserdioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning

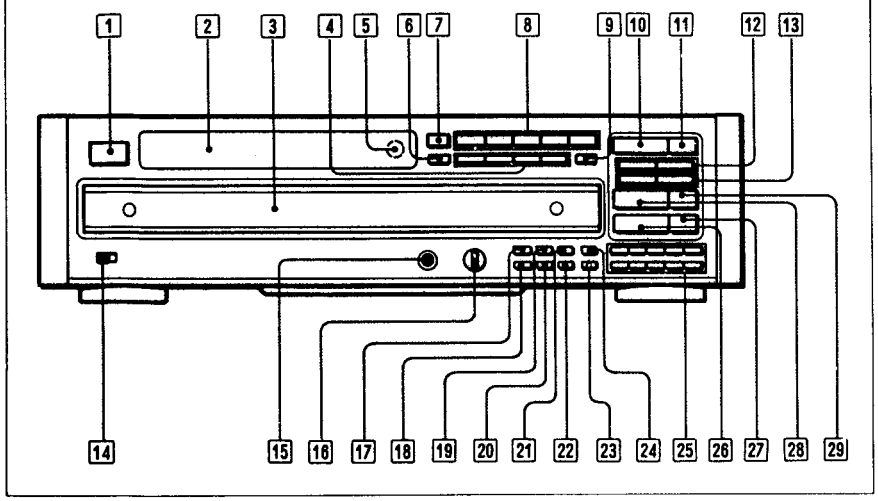

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.

VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

SECTION 1
GENERAL

Location of Controls

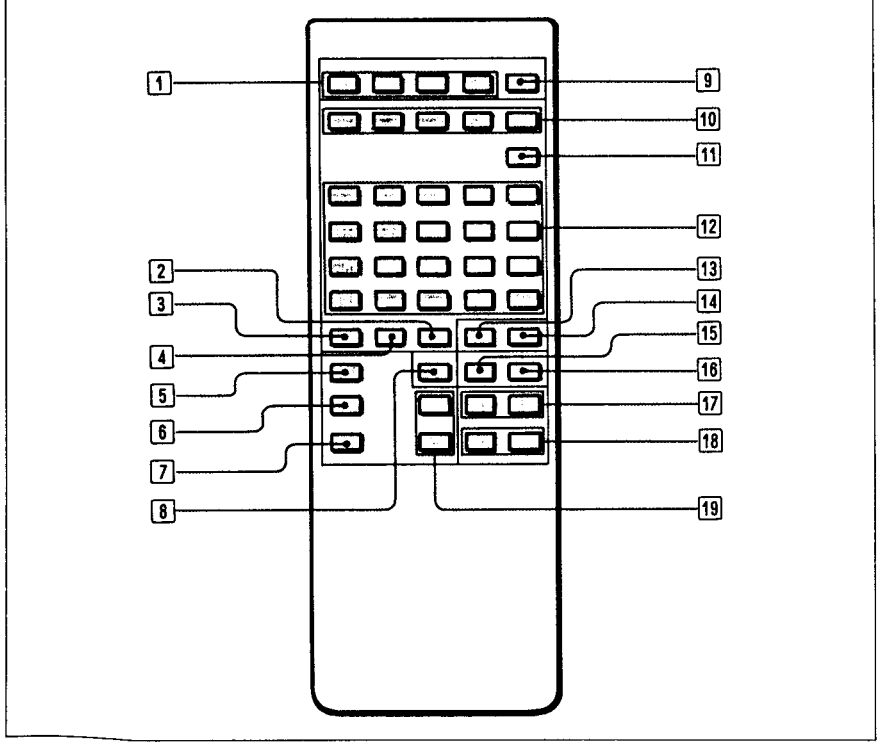
Front Panel



[1] POWER switch
[2] Display window
[3] Disc tray
[4] PLAY MODE buttons
CONTINUE button
SHUFFLE button
PROGRAM button
BANK button
[5] Remote sensor
[6] TIME/MEMO button
[7] MUSIC SCAN button
[8] DISC 1 - 5 buttons
[9] REPEAT button
[10] ⏏ OPEN/CLOSE button
[11] DISC SKIP button
[12] ◀◀ ▶▶ (manual search) buttons
[13] ⏮ ⏭ (AMS*) buttons

[14] TIMER switch
[15] HEADPHONES jack
[16] PHONE LEVEL/LINE OUT LEVEL control
[17] LEVEL FILE button
[18] FILE button
[19] CHECK button
[20] ERASE button
[21] CLEAR button
[22] PEAK SEARCH button
[23] TIME FADE button
[24] >10 button (CDP-C85ES only)
[25] Track buttons (CDP-C85ES only)
[26] ■ (stop) button
[27] FADER button
[28] ▶ (play) button
[29] ❚❚ (pause) button

Remote Commander



[1] PLAY MODE buttons
CONTINUE button
SHUFFLE button
PGM (program) button
BANK button
[2] CLEAR button
[3] >20 button
[4] CHECK button
[5] ▶ (play) button
[6] ❚❚ (pause) button
[7] ■ (stop) button
[8] FADER button

[9] MUSIC SCAN button
[10] DISC 1 - 5 buttons
[11] DISC SKIP button
[12] TRACK buttons
[13] FILE button
[14] LEVEL FILE button
[15] TIME button
[16] REPEAT button
[17] ⏮ ⏭ (AMS*) buttons
[18] ◀◀ ▶▶ (manual search) buttons
[19] LINE OUT VOLUME buttons

*AMS is the abbreviation of Automatic Music Sensor.

SECTION 2
ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENT

Chucking Arm Height Adjustment

This adjustment should be parformed after the electrical adjustment and on replacing adjusting screw, magnet, or chucking pulley.

Procedure:

1. Set disc (YEDS-18) to the optical pick-up block. (Fig. A)
2. Adjust the bracket (press pulley) to the center of the magnet with adjusting screw. (Fig. B)

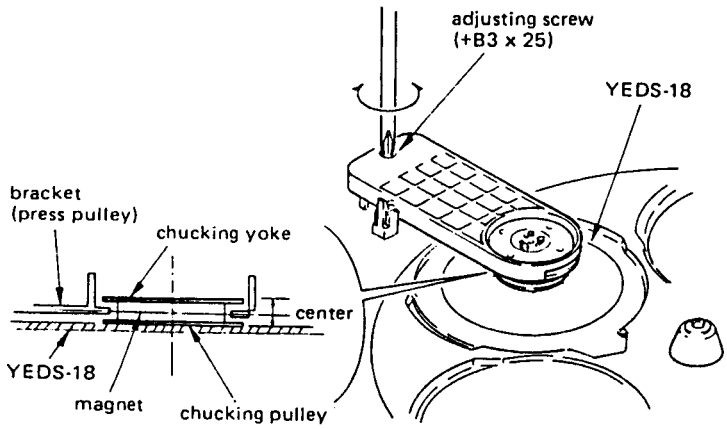
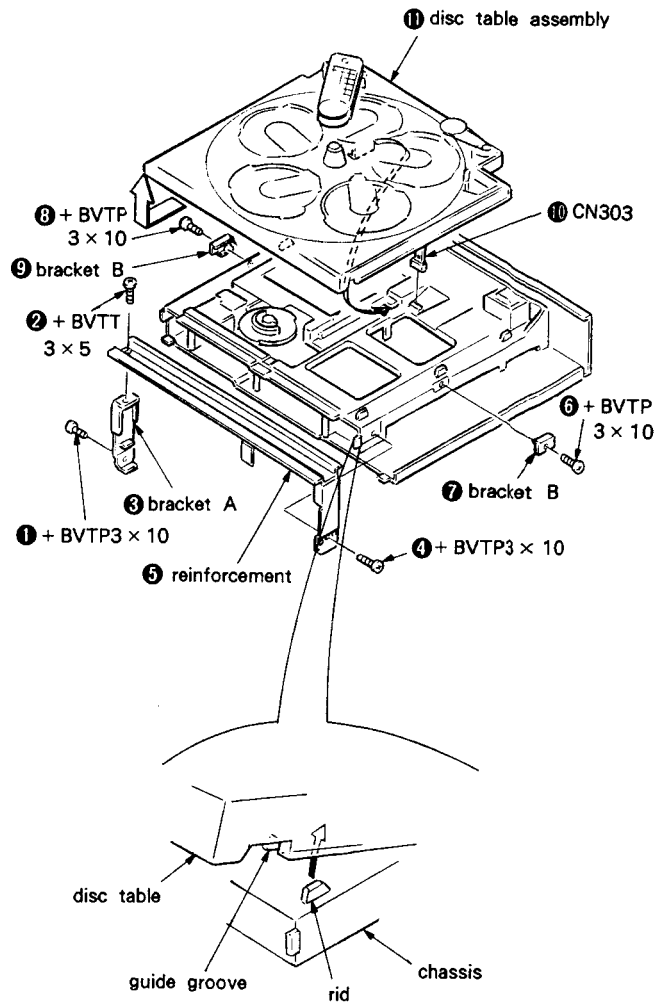


Fig. B Fig. A

3. Remove the disc table assembly.

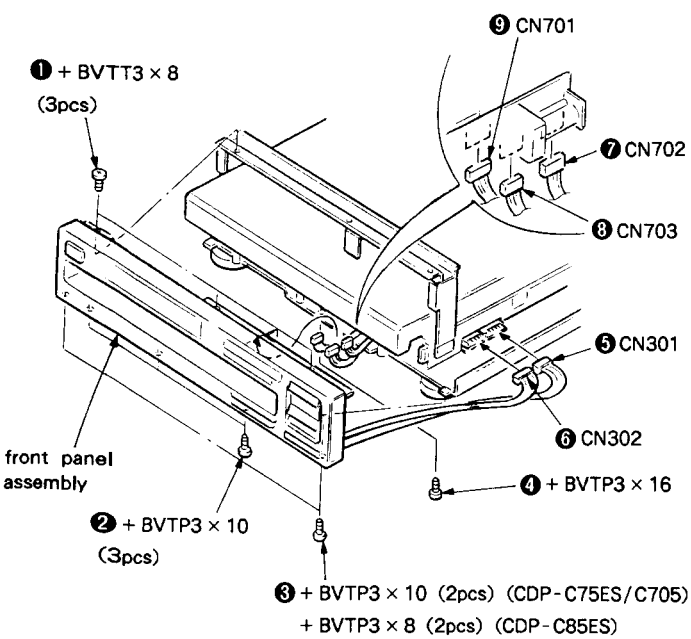

⓫ disc table assembly
❽ + BVTP 3 × 10
❾ bracket B
❷ + BVTT 3 × 5
⓾ CN303
❻ + BVTP 3 × 10
❸ bracket A
❼ bracket B
❶ + BVTP3 × 10
❹ + BVTP3 × 10
❺ reinforcement

Place disc table so that 5 rids on the chassis top enter the guide grooves on the bottom of the disk table.

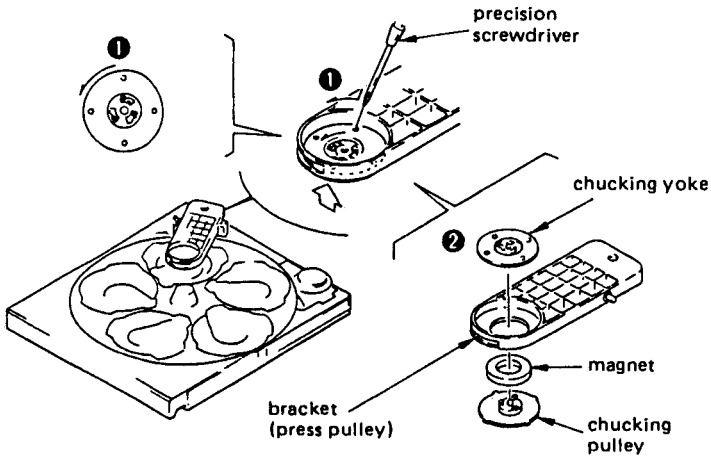
2-2. BEFORE ADJUSTMENTS

Note: Follow the disassembly procedure in the numerical order given.

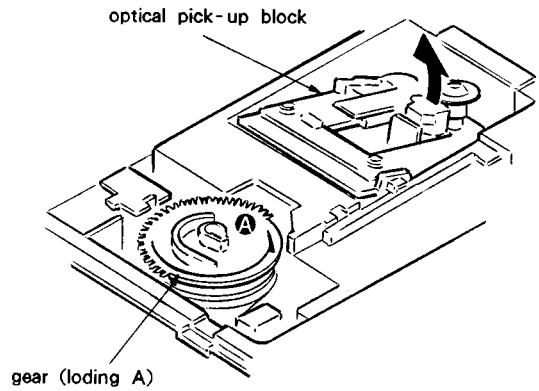
1. Remove the case.
2. Remove the frontpanel assembly.



4. Remove the chucking pulley.



5. When the optical block is down under, move up it by rotating gear (loading A) in the arrow Ⓐ direction with hands.



2-3. SERVICE MODE

1. Operation Check

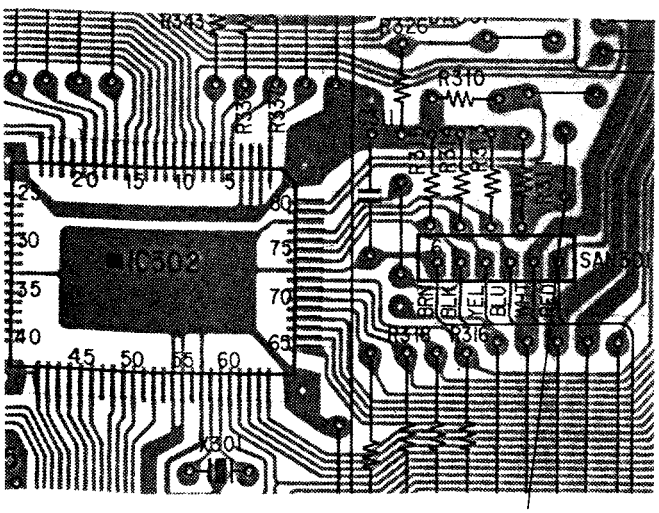
If the disc table is removed, perform the settings as described below.

1. **Remove the disc and then the magnet from the bracket.**
2. **Use the magnet to fix the disc in position.**
3. Connect test point IC302 (pin 79) to ground with a lead wire.
4. Set the power switch (S901) to on.
5. When the panel switch is pressed, the unit operates normally. (The OPEN/CLOSE (S804) and DISC SKIP (S834) switches are disabled.)

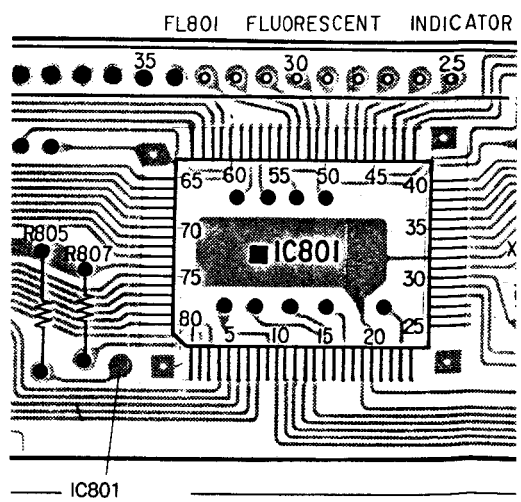
2. Display Check

1. Connect test point IC801 (pin 23) to ground with a lead wire.
2. Set the power switch (S901) to on.
3. Press the switches on the panel and check that each of the corresponding indicators lights.

[MAIN BOARD] – Conductor Side –



[DISPLAY BOARD] – Conductor Side –

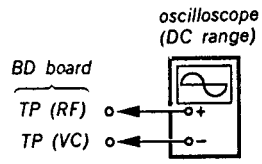


2-4. ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

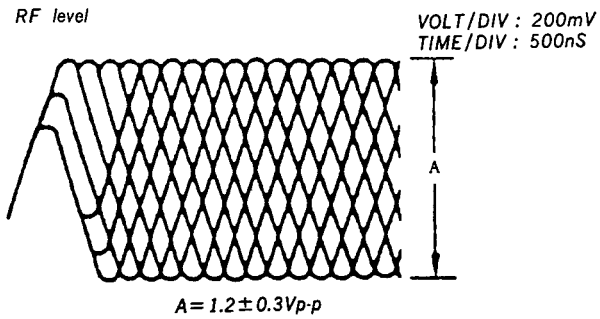
RF Level Check

Procedure :



1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
2. Confirm that RF level and eye pattern is optimum.
   Oputimum eye pattern means that shape "◇" can be clearly distinguished at the center of the wave form.

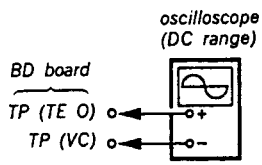
RF signal Reference Waveform (eye pattern)



REFERENCE

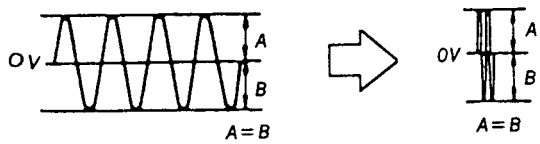
E-F Balance Check

Procedure :



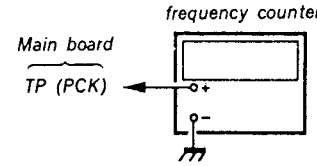
1. Connect test point TP (ADJ) and TP (TES) to ground with lead wire.
2. Connect oscilloscope to test point TP (TE O) and TP (VC) on BD board.
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V.
6. After check, remove the lead wire connected in step 1.

Note : Take sweep time as long as possible to obtain best waveform.



RF PLL Free-run Frequency Check

Procedure :



1. Turn POWER switch on.
2. Put disc (YEDS-18) in and playback.
3. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain Adjustment

A frequency responce analyzer is necessary in order to perform this adjustment exactly.

However, this gain cas a margin, so even if it is slightly off. there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is the point where both are satisfied.

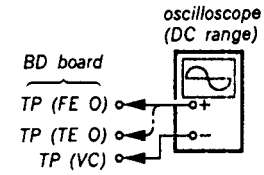
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
• The time until music starts becmes longer for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.) (Normally takes about 1 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP →▷ PLAY or automatic selection. (⏮, ⏭ buttons pressed.)	—	low
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More noise during 2-axis device operation.	high	high

The following is a simple adjustment method.

—Primary Adjustment—

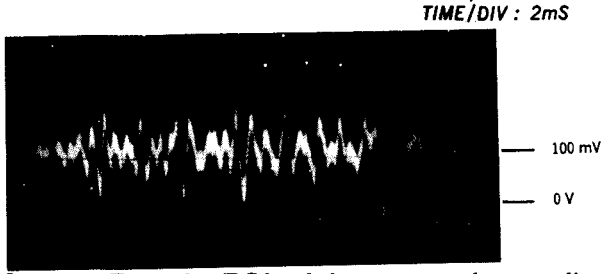
Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the primary adjustment are only a little different, returs the controls the original position.



Procedure:

1. Keep the set horizontal.
   If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and press ▷ PLAY button.
3. Connect oscilloscope to TP (FEO) and TP (VC) on BD board.
4. Adjustment RV102 on digital board so that the waveform is as shown in the figure below. (focus gain adjustment)

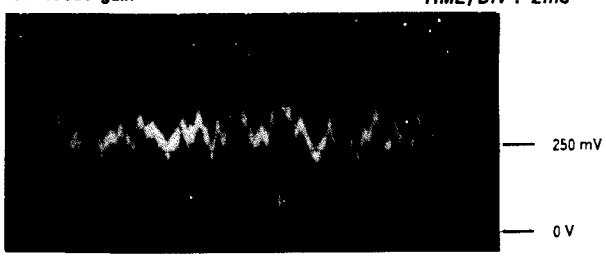
VOLT/DIV : 100mV
TIME/DIV : 2mS



• Incorrent Examples (DC level changes more than on adjusted waveform)

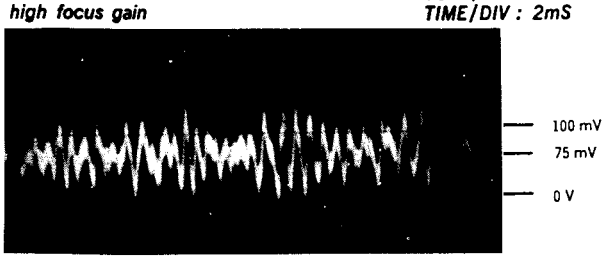
low focus gain

VOLT/DIV : 100mV
TIME/DIV : 2mS

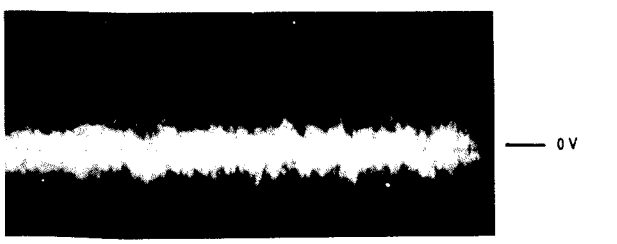


high focus gain

VOLT/DIV : 100mV
TIME/DIV : 2mS

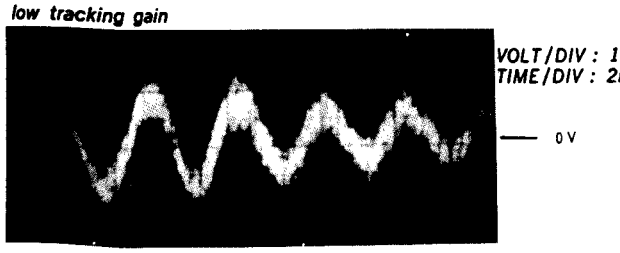


5. Connect oscilloscope to TP (TEO) and TP (VC) on BD board.
6. Adjusted RV101 on digital board so that the waveform is as shown the flgure below. (tracking gain adjustment)



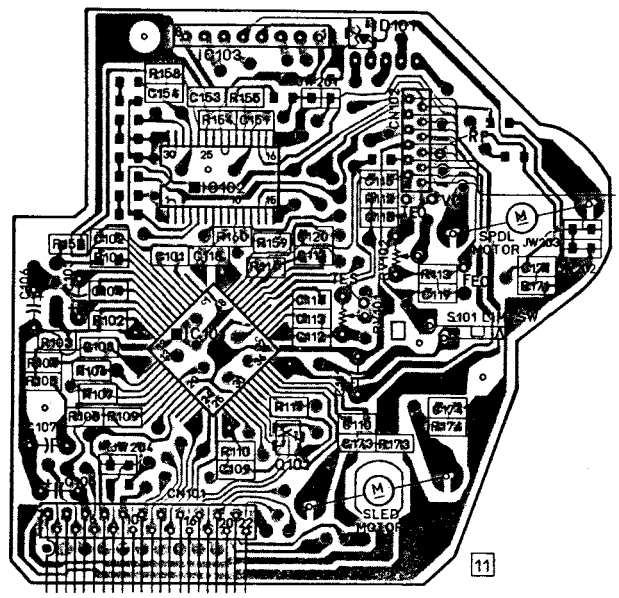
• Incorrect Examples (fundamentia wave appears)

low tracking gain



high tracking gain
(high fandamential wave than for low gain)

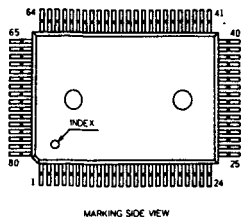
Adjustment Locations:
[BD board]



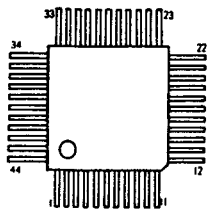
SECTION 3
DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUTS

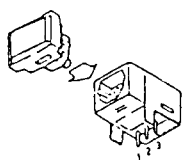
CXD2500Q
MSC62408-009GS-K
μ PD-75512GF-034-3B9



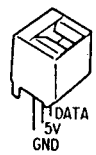
CXD2552Q



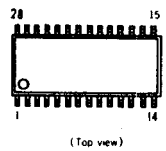
GP1F31T



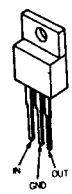
GP1U52XB



LC3564PML-15

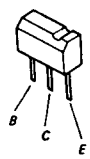


M5F7807



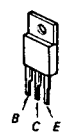
DTA114ES
DTC144ES

DTC114EF

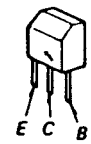


2SC3622A-K

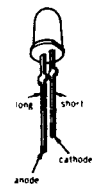
2SB1094-L



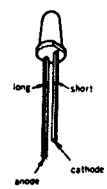
2SD774-5
2SD774-34



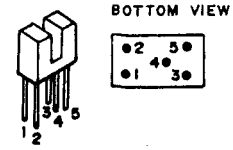
AA5534S



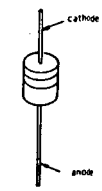
BG5535S



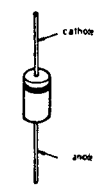
GP-1A521



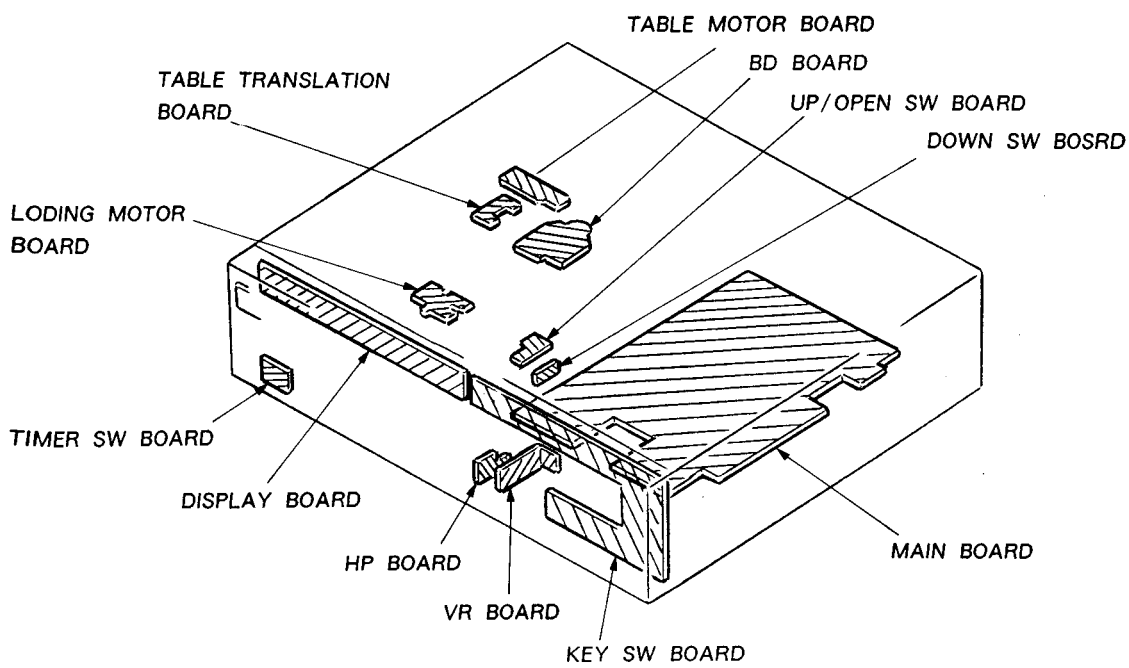
RD5,1JS-B1
RD5,6ES-B
1SS202-1
11EQS04



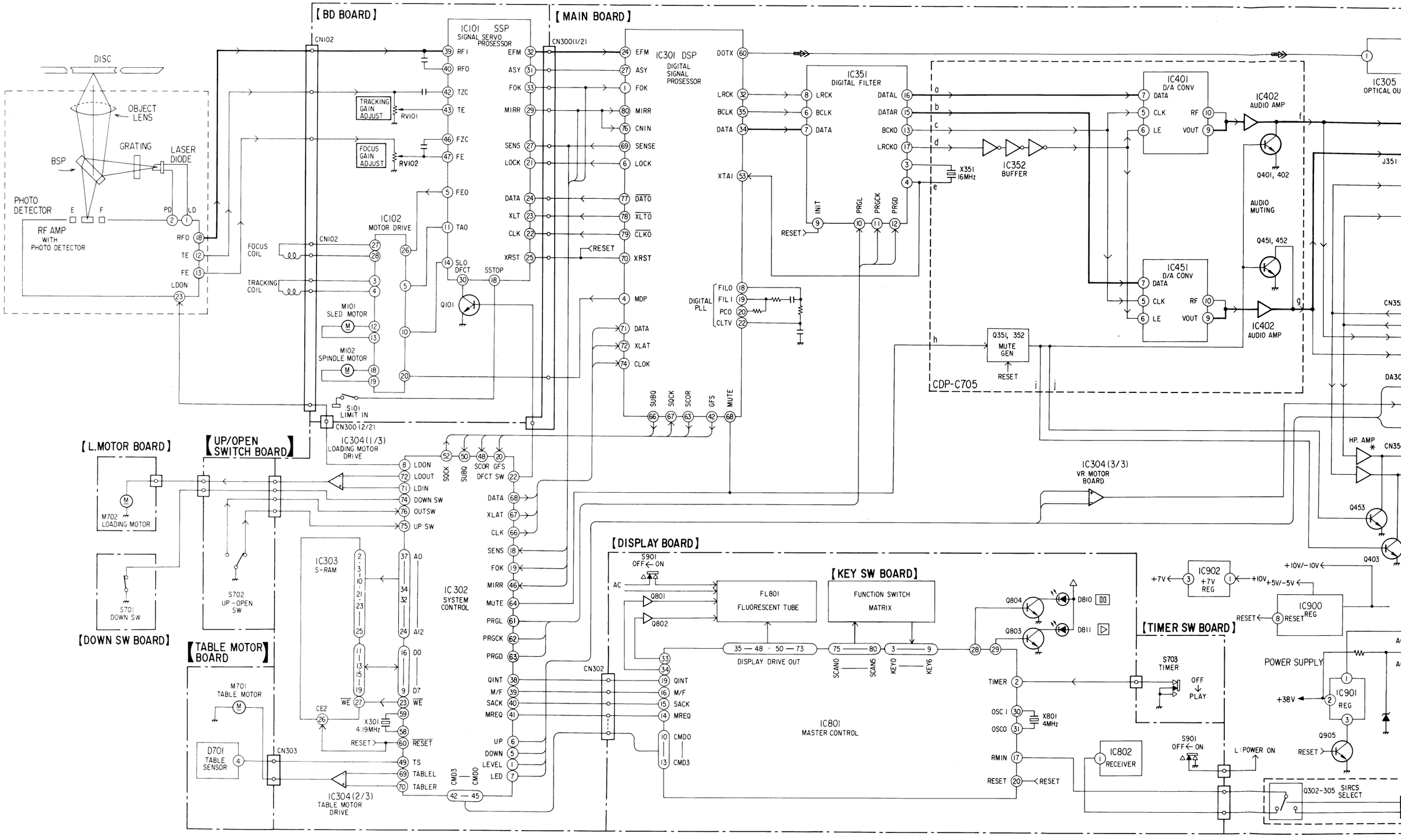
10E2N

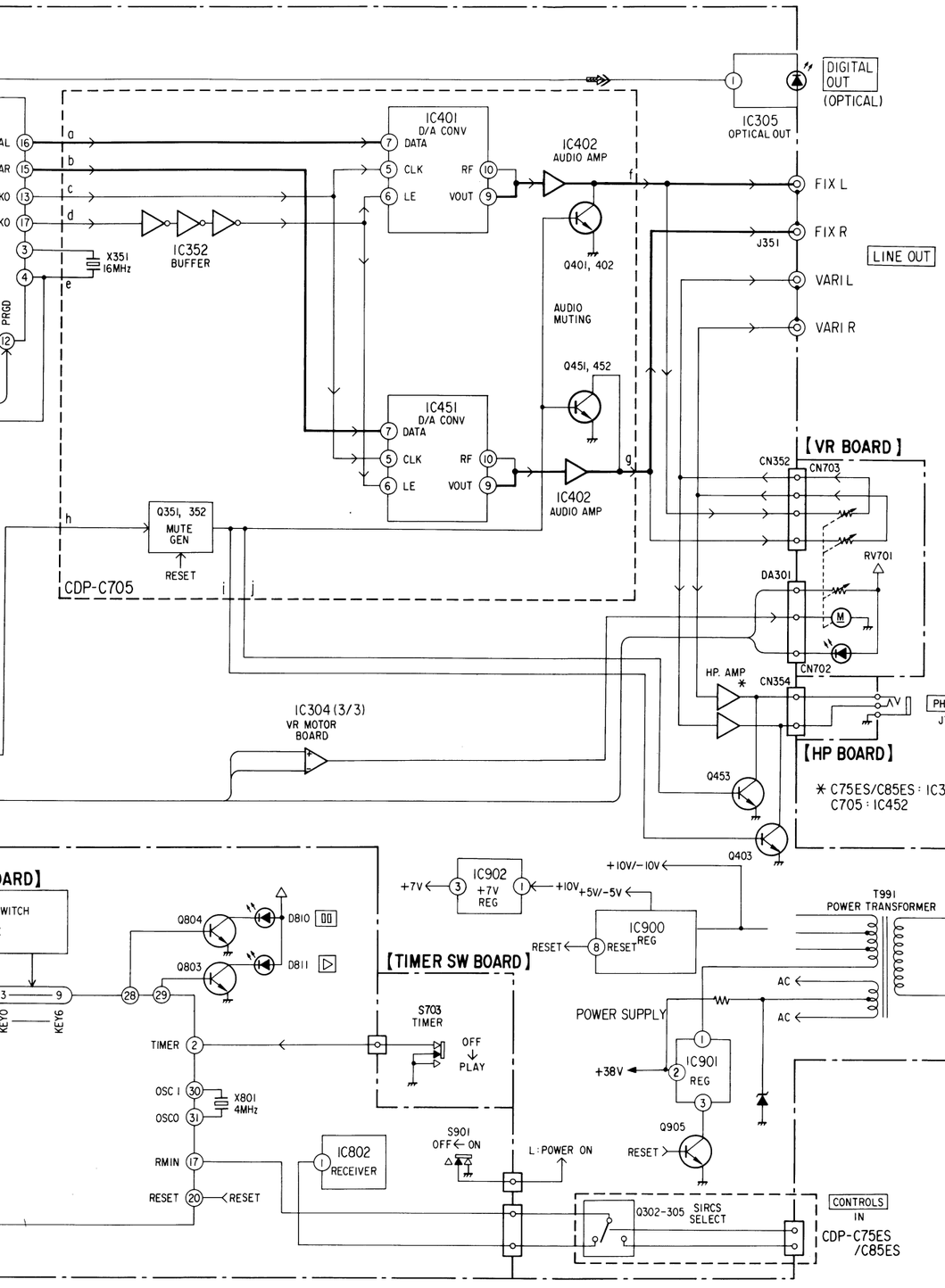


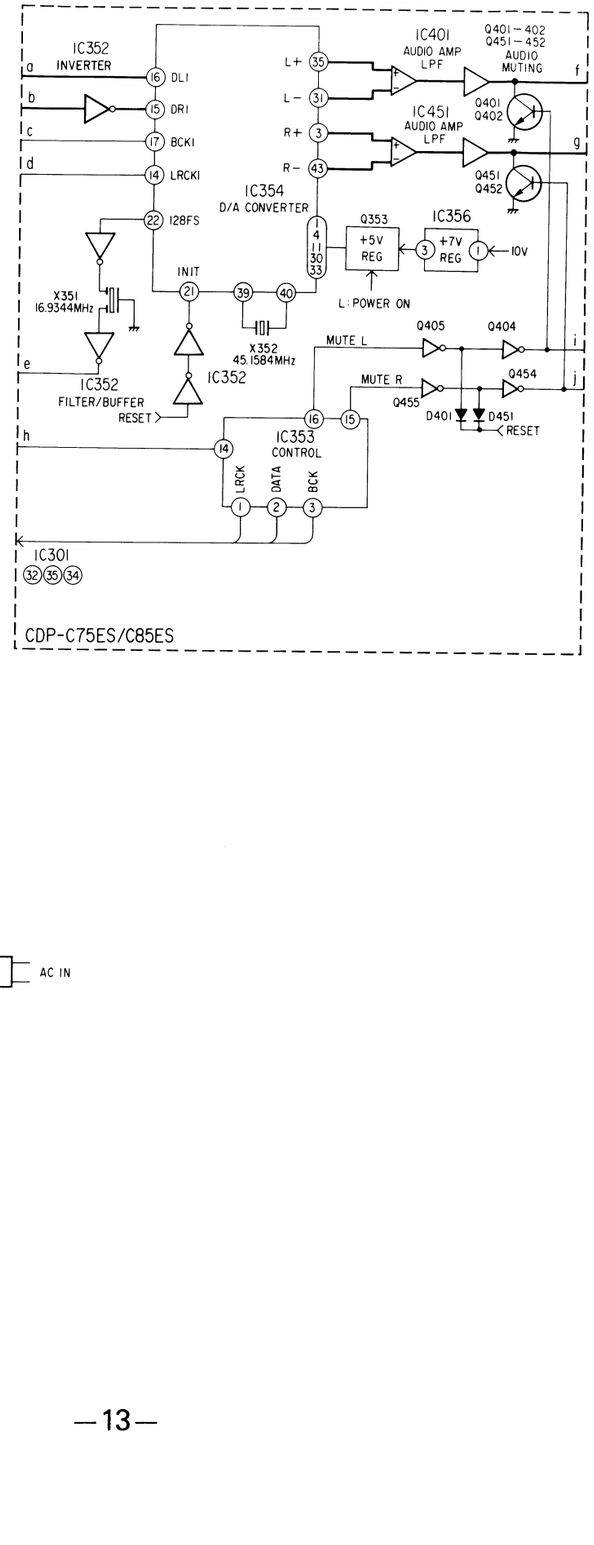
3-2. CIRCUIT BOARDS LOCATION



3-3. BLOCK DIAGRAM

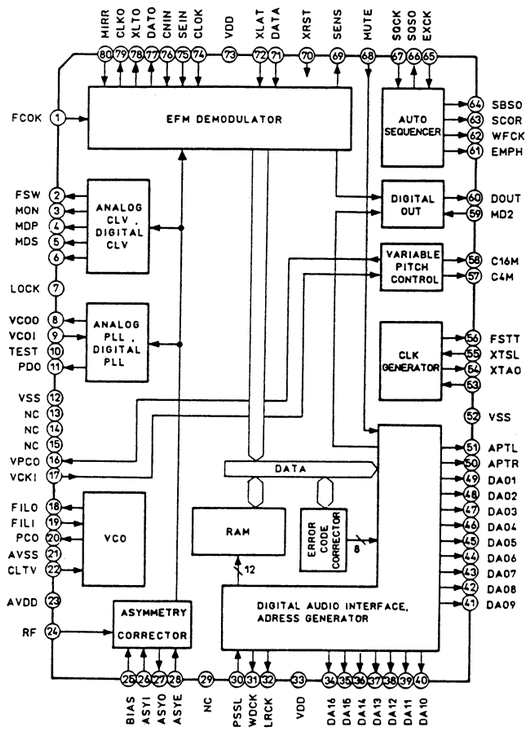




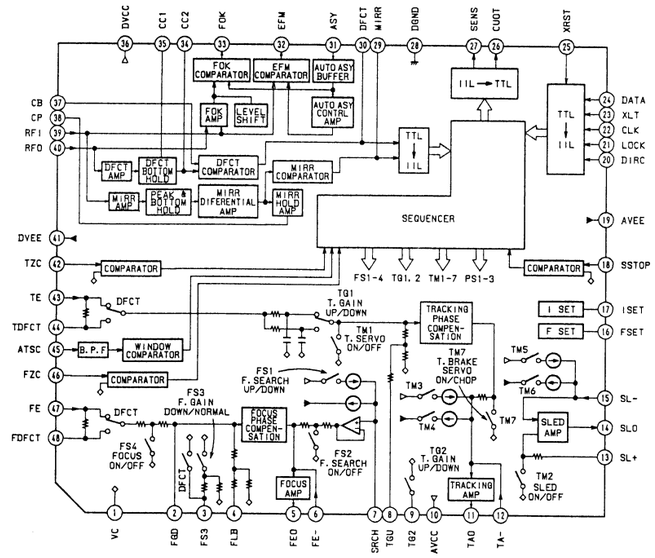


3-4. IC BLOCK DIAGRAMS

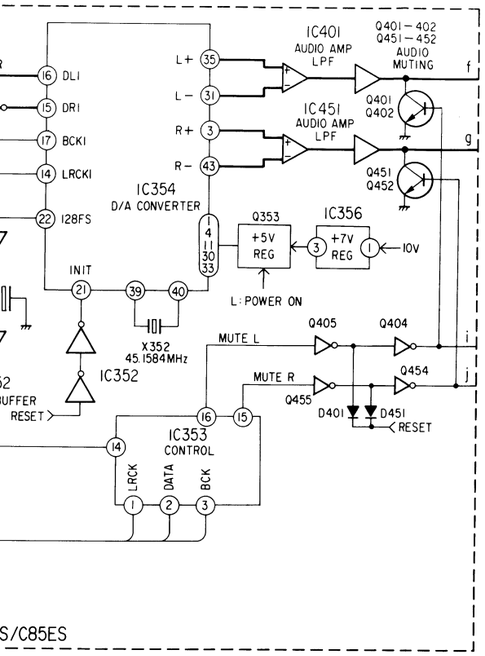
• IC301 CXD2500Q



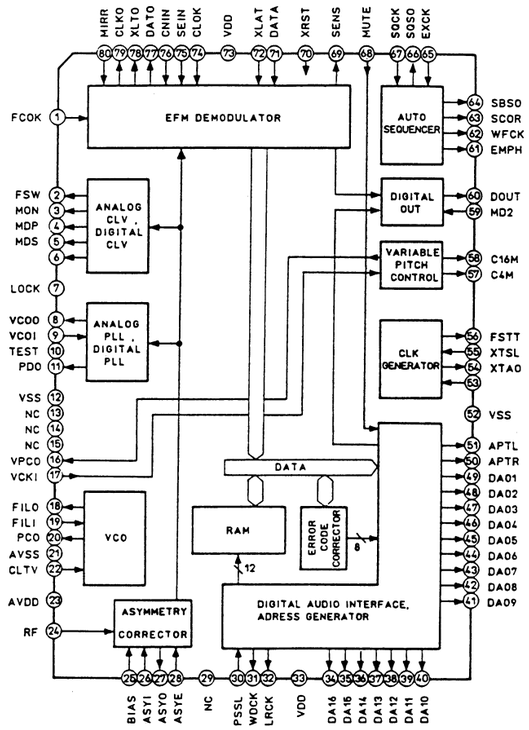
• IC101 CXD1372Q



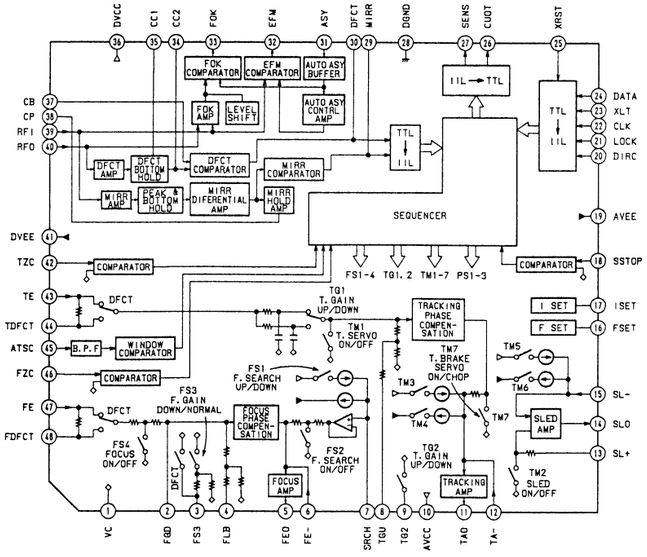
3-4. IC BLOCK DIAGRAMS



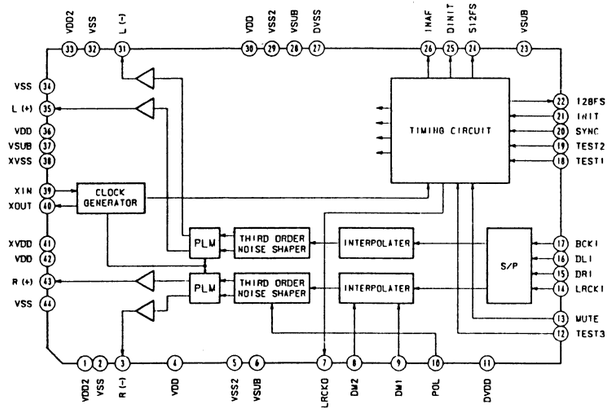
• IC301 CXD2500Q



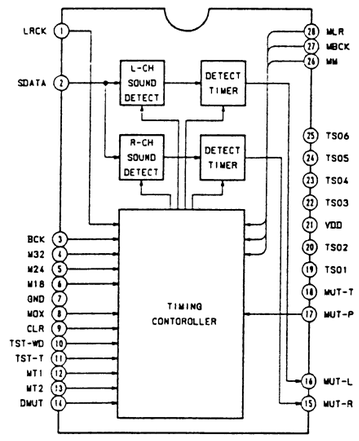
• IC101 CXD1372Q



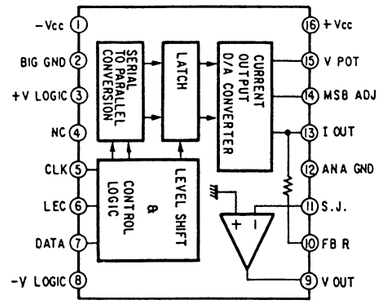
• IC354 CXD2552Q (C75ES/C85ES MODEL)


VDD2 VSS L(-) VDD VSS2 VSUB DVSS INAF DINIT S12FS VSUB
VSS L(+) VDD VSUB XVSS XIN XOUT XVDD VDD R(+) VSS
TIMING CIRCUIT
I28FS INIT SYNC TEST2 TEST1
CLOCK GENERATOR
PLM
THIRD ORDER NOISE SHAPER
INTERPOLATER
S/P
BCKI DLI DRI LRCKI MUTE TEST3
VDD2 VSS R(-) VDD VSS2 VSUB LRCKO DW2 DW1 POL DVDD

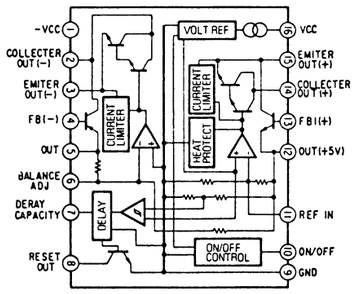
• IC353 CXD2553S (C75ES/C85ES MODEL)


LRCK SDATA BCK W32 W24 W18 GND WDX CLR TST-WD TST-T WT1 WT2 DWUT
L-CH SOUND DETECT
R-CH SOUND DETECT
DETECT TIMER
TIMING CONTOROLLER
MLR MBCK MM TSO6 TSO5 TSO4 TSO3 VDD TSO2 TSO1 MUT-T MUT-P MUT-L MUT-R

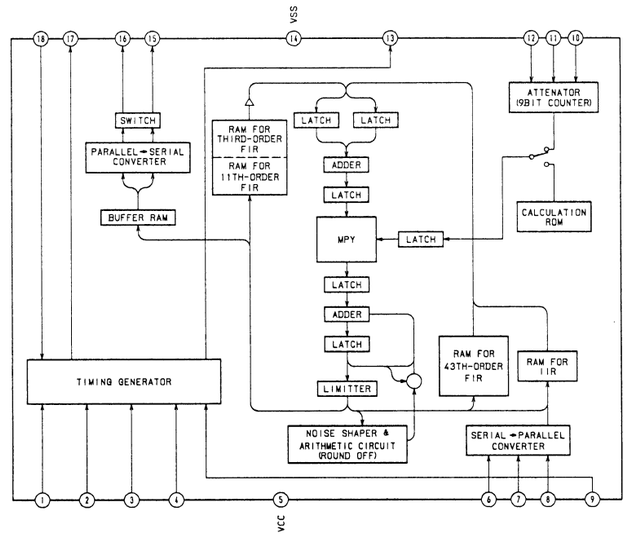
• IC401,451 AD1860N-K (C705 MODEL)


-Vcc BIG GND +V LOGIC NC CLK LEC DATA -V LOGIC
SERIAL TO PARALLEL CONVERSION
LATCH
CURRENT OUTPUT D/A CONVERTER
CONTROL LOGIC & LEVEL SHIFT
+Vcc V POT MSB ADJ I OUT ANA GND S.J. FB R V OUT

• IC900 M5290P-16



• IC351 CXD2554P



3-5. PRINTED WIRING BOARDS —MAIN BOARD—

• See page 10 for Semiconductor Lead Layouts and Circuit Boards Location.

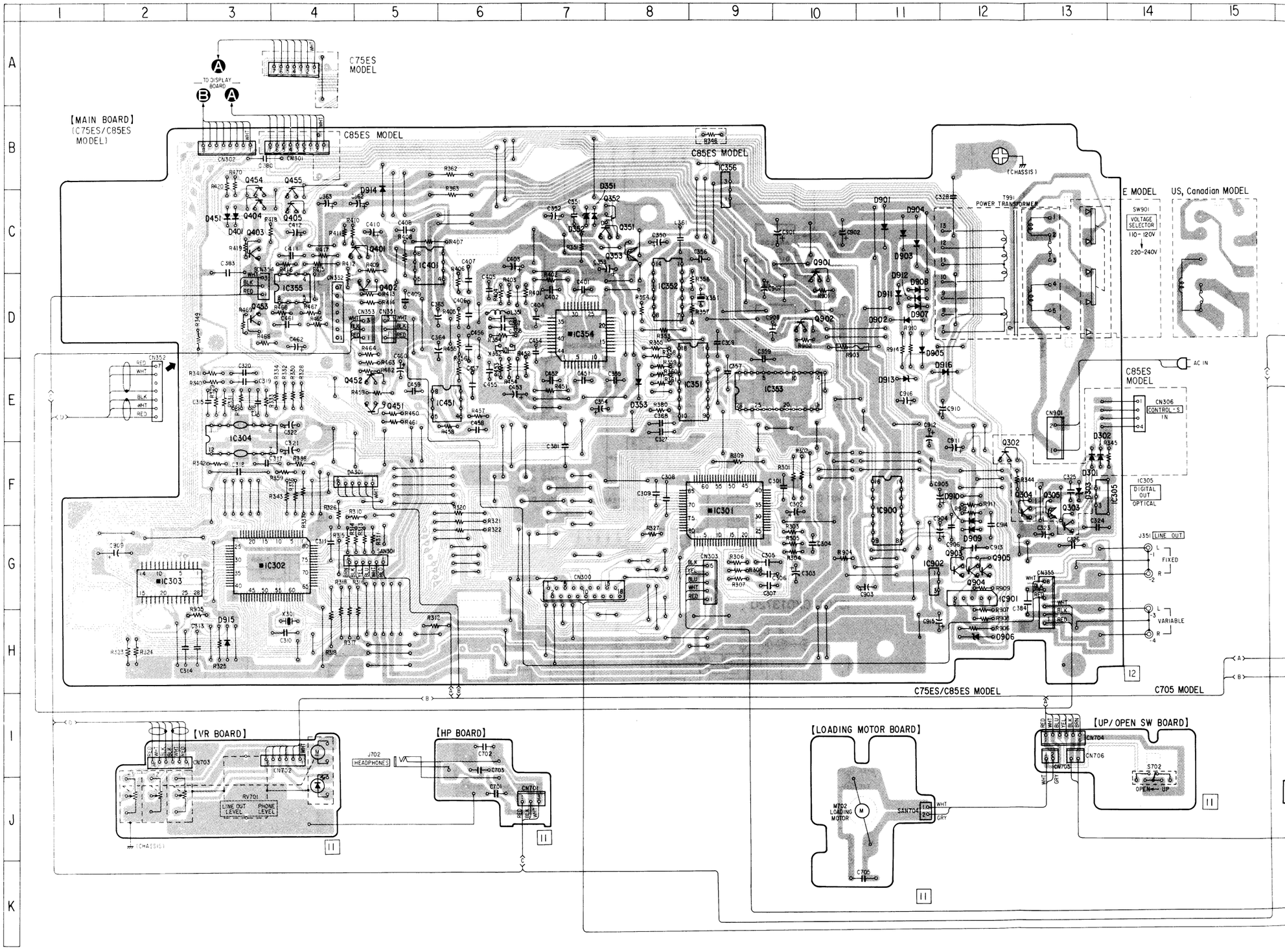
• Semiconductor Location

C75ES/C85ES Model

Ref. No.	Location
D301	F-13
D302	F-13
D303	F-13
D351	C-7
D352	C-7
D353	E-8
D401	C-3
D451	C-3
D701	I-22
D901	C-11
D902	D-11
D903	C-11
D904	C-11
D905	D-11
D906	H-12
D907	D-11
D908	D-11
D909	G-12
D910	F-12
D911	D-11
D912	D-11
D913	E-11
D914	B-5
D915	H-3
D916	E-12
IC301	F-9
IC302	G-4
IC303	G-2
IC304	E-3
IC305	F-14
IC351	E-9
IC352	D-8
IC353	E-10
IC354	D-7
IC355	D-4
IC356	B-9
IC401	C-5
IC451	E-6
IC900	F-11
IC901	G-12
IC902	G-12
Q302	F-12
Q303	F-13
Q304	F-13
Q305	F-13
Q351	C-8
Q352	C-8
Q353	C-8
Q401	C-5
Q402	D-5
Q403	C-3
Q404	C-3
Q405	C-4
Q451	E-5
Q452	E-5
Q453	D-3
Q454	B-3
Q455	B-4
Q901	C-10
Q902	D-10
Q903	G-12
Q904	G-12
Q905	G-12

C705 Model

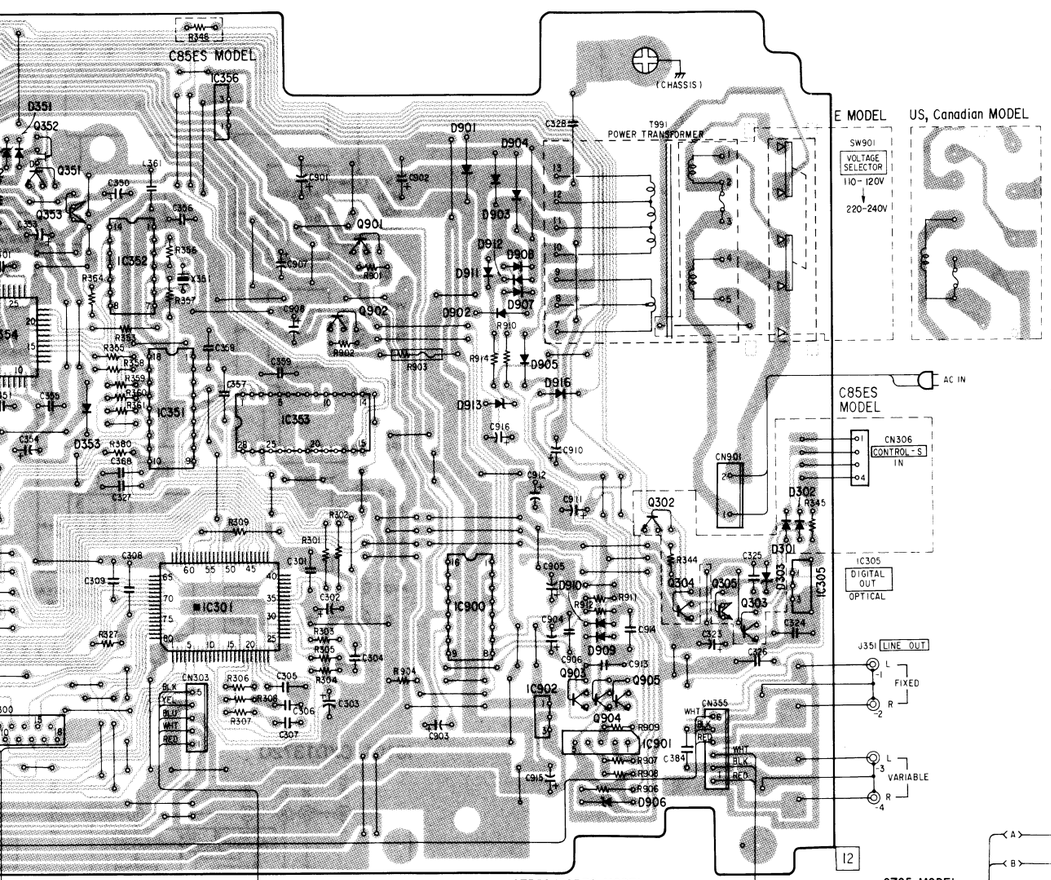
Ref. No.	Location
D351	C-19
D701	I-22
D901	C-26
D902	D-26
D903	C-27
D904	C-27
D905	D-27
D906	H-27
D907	D-27
D908	C-27
D909	F-27
D910	F-27
D911	C-26
D912	D-27
D913	D-27
D914	C-21
D915	H-18
IC301	F-24
IC302	G-19
IC303	G-18
IC304	E-19
IC351	E-25
IC352	D-24
IC401	D-23
IC402	D-22
IC451	E-23
IC452	D-20
IC900	F-26
IC901	G-27
IC902	G-27
Q351	C-19
Q352	C-19
Q401	C-21
Q402	C-21
Q403	D-19
Q451	E-21
Q452	E-21
Q453	D-19
Q901	C-26
Q902	D-25
Q903	G-27
Q904	G-27
Q905	G-27

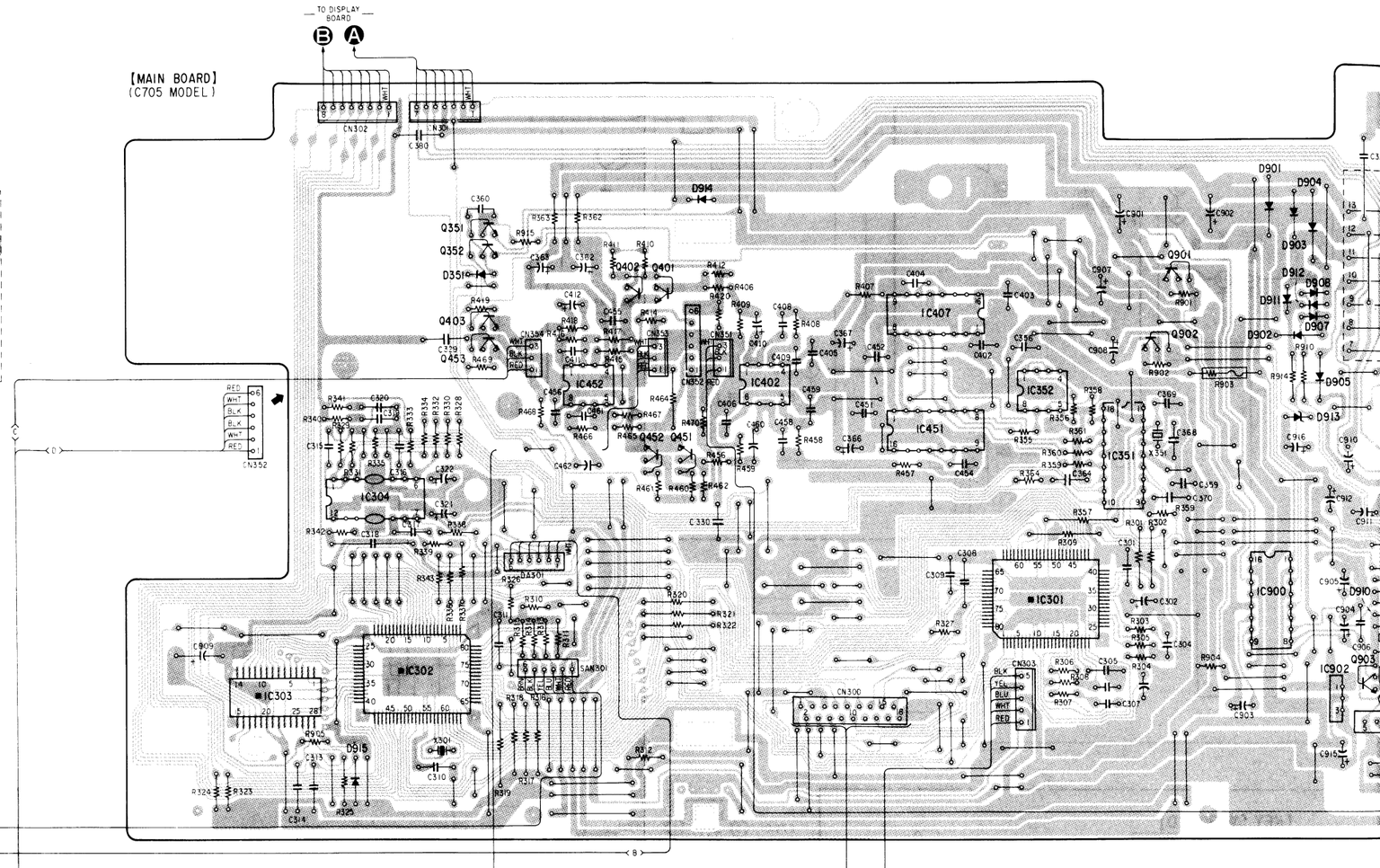


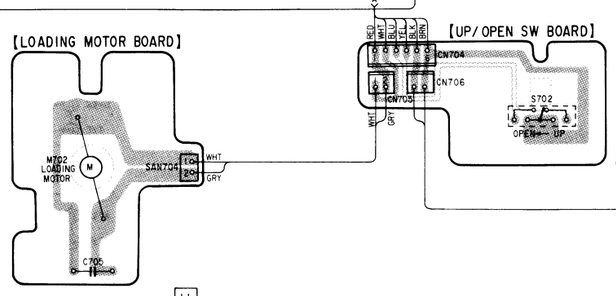
Note on Mounting Diagram:

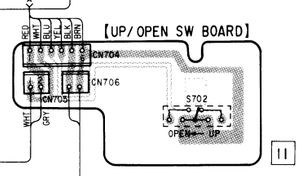
- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

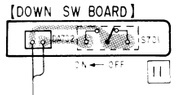
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

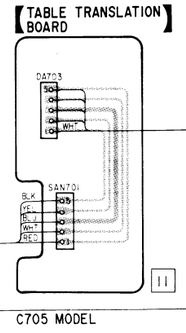


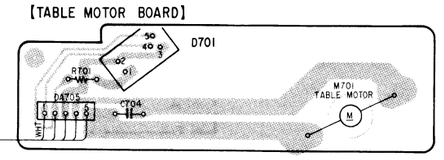




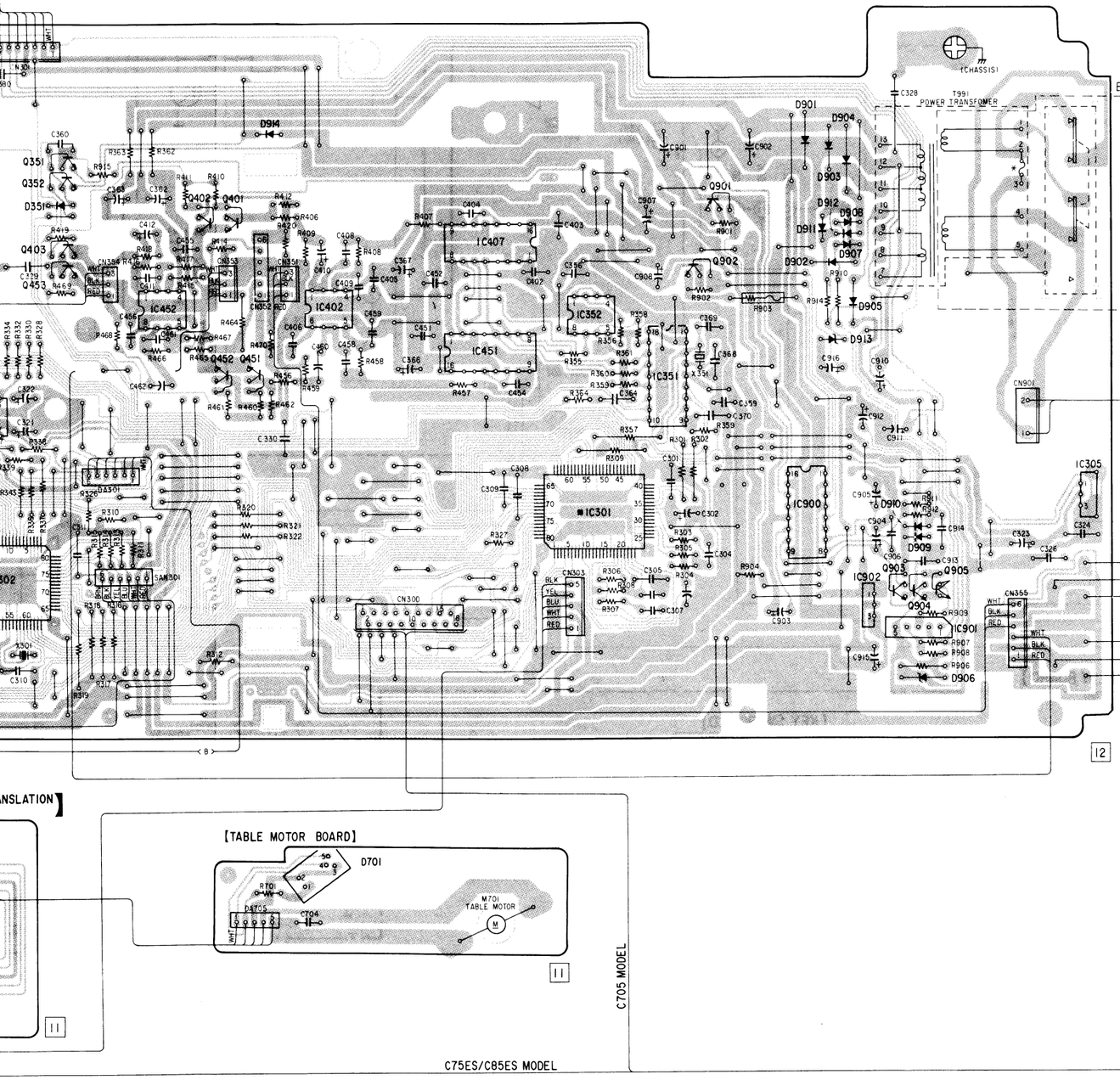




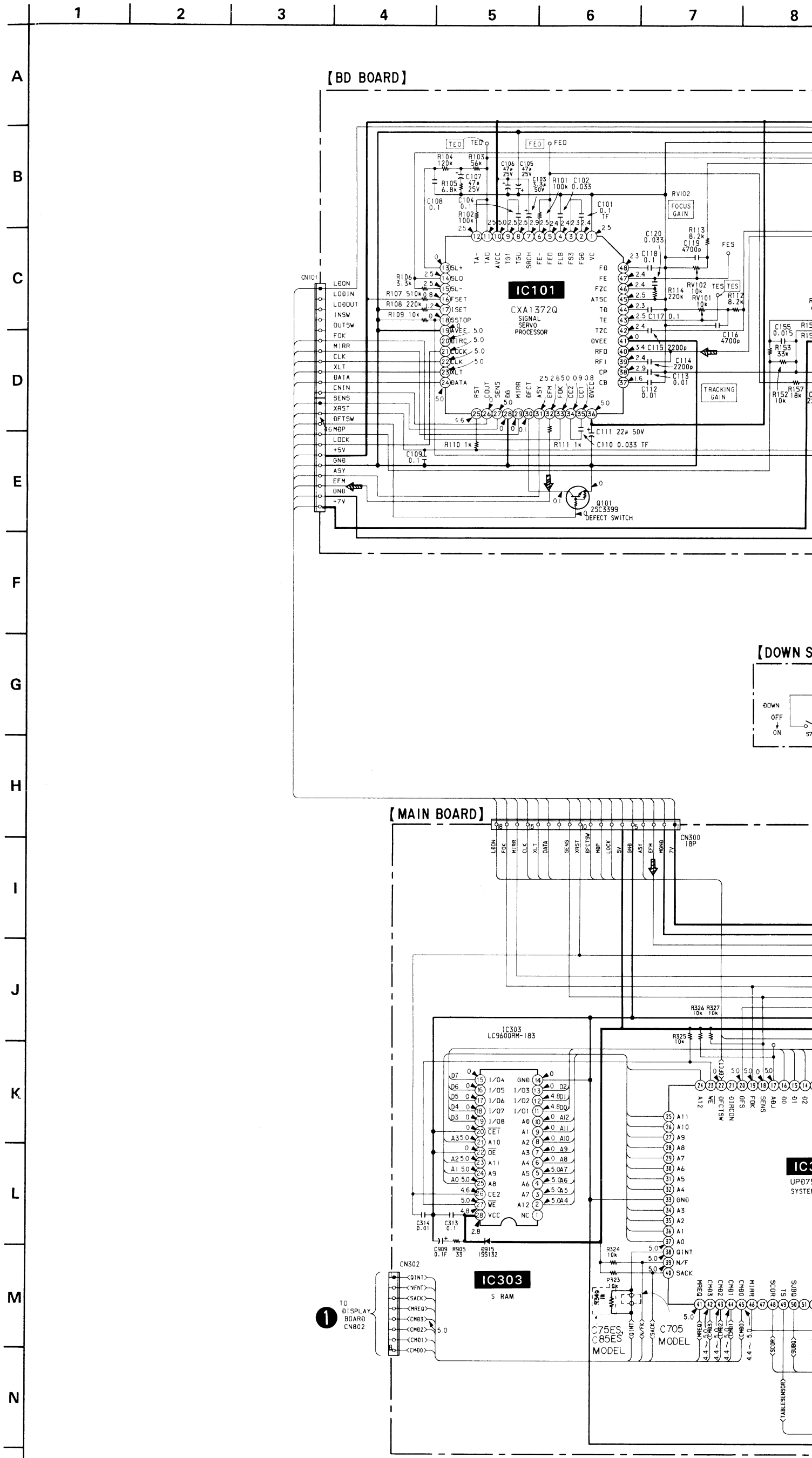




19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36



3-6. SCHEMATIC DIAGRAM —MAIN BOARD— • See page 14 for IC block diagram.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ——— : B+ Line
- - - - : B— Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
- Voltages are taken with a VOM (Input impedance 10M Ω)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : CD
  ⇨⇨ : digital out

IC102
MOTOR DRIVE

IC102
LA1632M

PLAY MODE
1.1Vp-p

OPTICAL PICK-UP BLOCK
KSS240A

IC200 M52103FP
IC200
PHOTO DETECTOR

CN102 12P

【TABLE MOTOR BOARD】
D701 GP1A52J
R701 820
M701 TABLE MOTOR
C704 2200p
DA705 SP WHT
TM
GND
+5V
GND
SENSOR

【DOWN SW BOARD】
【UP/OPEN SW BOARD】
【LOARDING MOTOR BOARD】
UP→OPEN
DOWN OFF ON
S701
S702
SAN702 3P
CN706 3P
CN705 2P
CN704 6P
SAN404 2P
C705 2200p
M702 RF500TB
LOADING

S101
LIM.SW

SAN301
BA301
CN303 EH-5P BLK

3Vp-p
STOP MODE
0.06μS

IC351
DIGITAL FILTER
CXD2554P

IC353
TIMING CONTROL
CXD2535S

IC352
FILTER /BUFFER
74HCU04

IC356
+7V REG
M5F7807

Q351
B+ SWITCH
2SA1348

Q352
LIMITER
2SK161-GR

Q353
+5V REGULATOR
2SD774

Q454, 455
R MUTE

Q404, 405
L MUTE

IC304
TABLE/LOADING/VR MOTOR DRIVE
CXA1291P

IC902
+7V REGULATOR
M5F7807

IC900
VOLTAGE REGULATOR

IC901
VOLTAGE REGULATOR

IC302
UPD75512GF
SYSTEM CONTROL

IC301
CXD2500
DIGITAL SIGNAL PROCESSOR

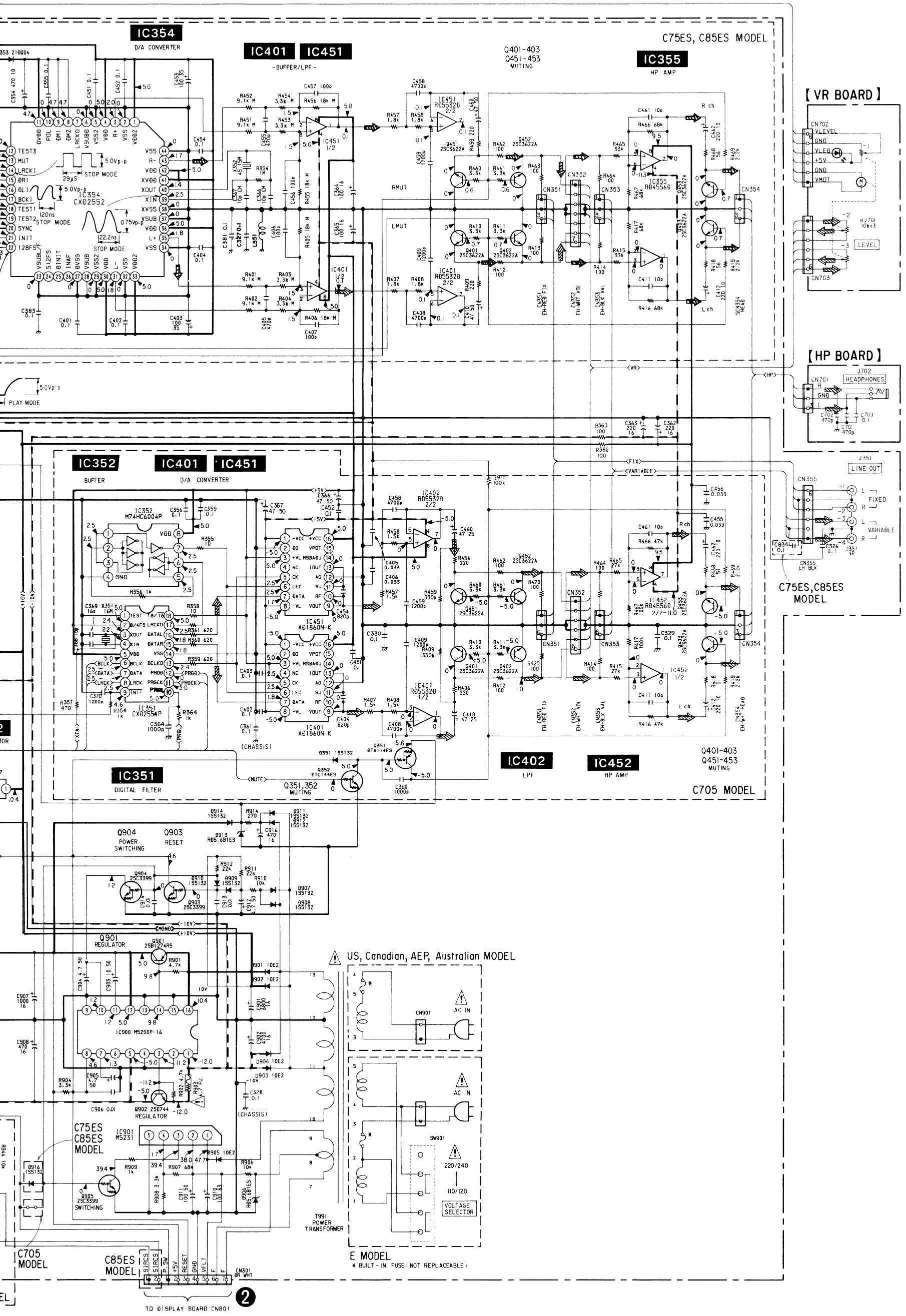
IC305
OPTICAL OUT
GP1F31T
DIGITAL OUT

Q302-305
SIRCS SELECT

C85ES MODEL

5.5Vp-p
240ns
STOP MODE

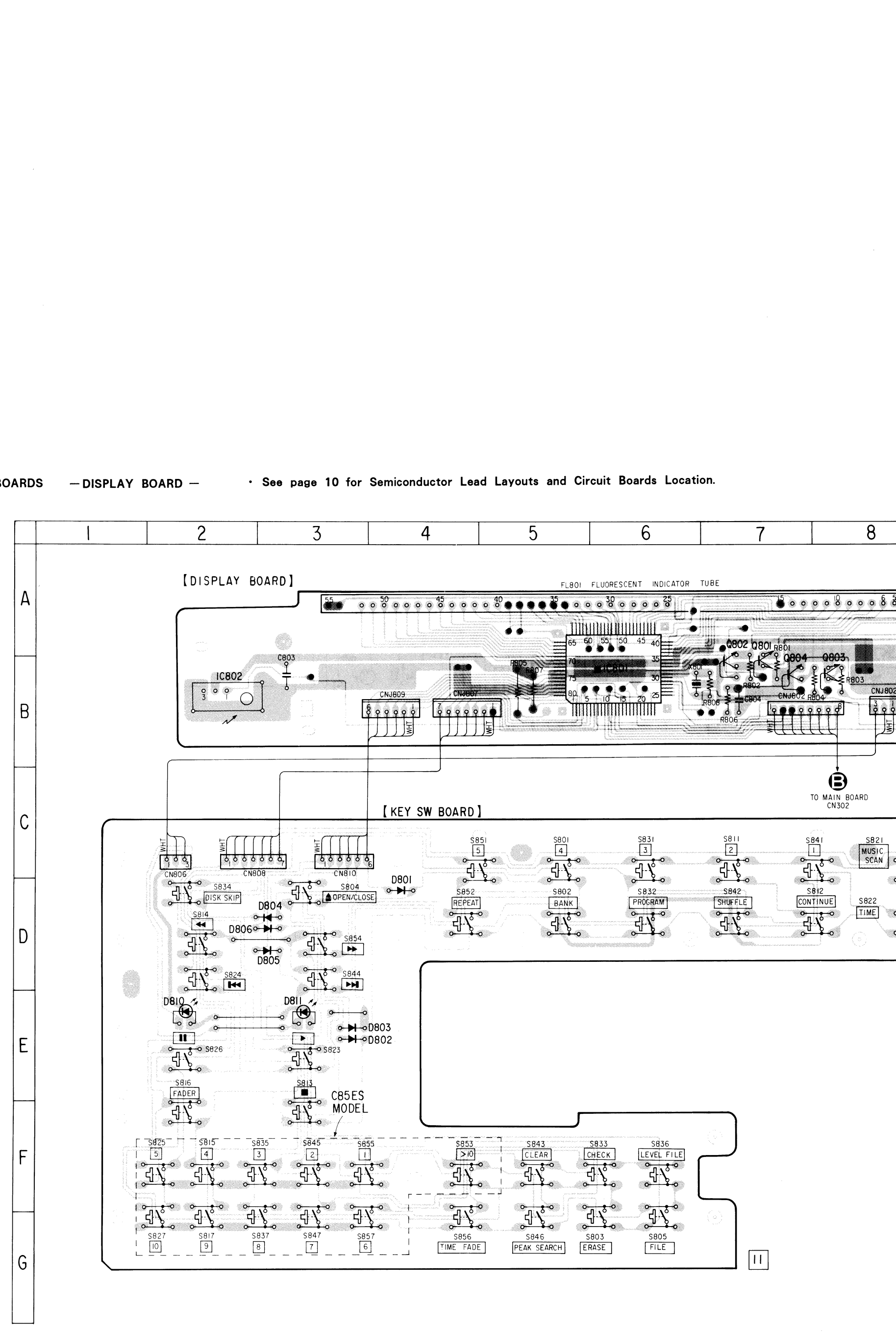
440ns


C75ES, C85ES MODEL
IC354
D/A CONVERTER
IC401 IC451
-BUFFER/LPF-
Q401-403
Q451-453
MUTING
IC355
HP AMP
【VR BOARD】
【HP BOARD】
J702
HEADPHONES
J351
LINE OUT
FIXED
VARIABLE
C75ES,C85ES MODEL
IC352
BUFFER
IC401 IC451
D/A CONVERTER
IC352 M74HC6004P
IC451 AD1860N-K
IC401 AD1860N-K
IC351 CX02554P
IC402 RD55320 2/2
IC452 RD45560 2/2-11.0
IC351
DIGITAL FILTER
IC402
LPF
IC452
HP AMP
Q401-403
Q451-453
MUTING
C705 MODEL
Q904 POWER SWITCHING
Q903 RESET
Q901 REGULATOR
Q902 2SD744 REGULATOR
IC900 M5290P-16
IC901 M5231
C75ES C85ES MODEL
Q905 2SC3399 SWITCHING
T991 POWER TRANSFORMER
US, Canadian, AEP, Australian MODEL
AC IN
SW901
220/240
110/120
VOLTAGE SELECTOR
E MODEL
* BUILT-IN FUSE (NOT REPLACEABLE)
C705 MODEL
C85ES MODEL
TO DISPLAY BOARD CN801

• See page 10 for Semiconductor Lead Layouts and Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D801	D-4
D802	E-3
D803	E-3
D804	D-3
D805	D-3
D806	D-3
D810	E-2
D811	E-3
IC801	B-6
IC802	B-2
Q801	B-7
Q802	B-7
Q803	B-8

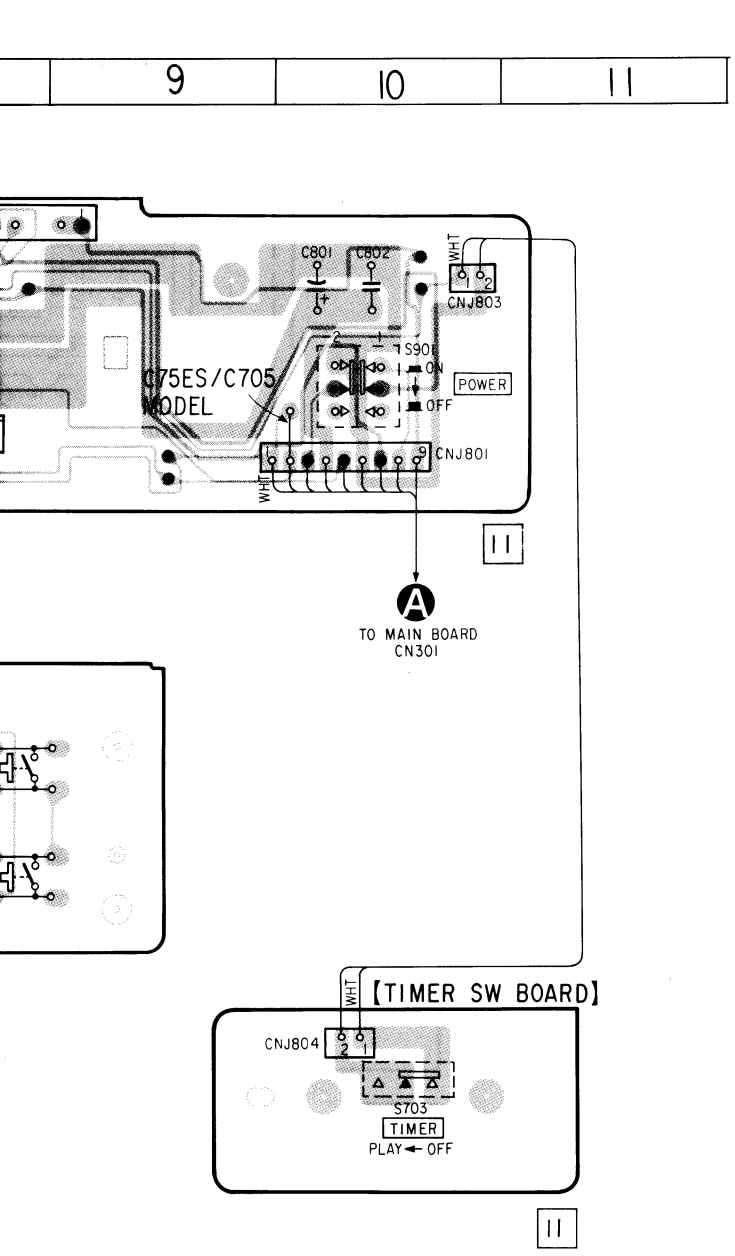


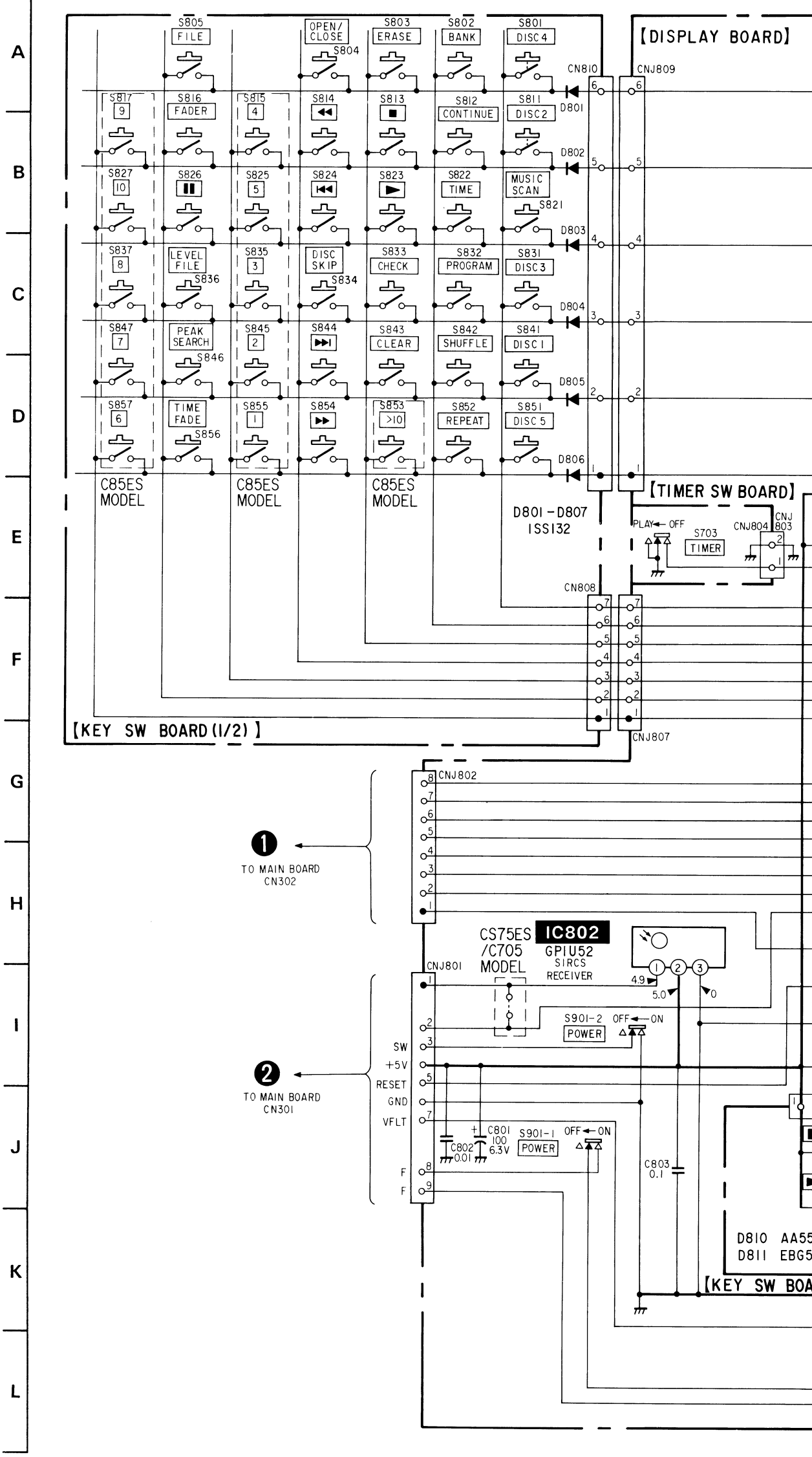
Note on Mounting Diagram:

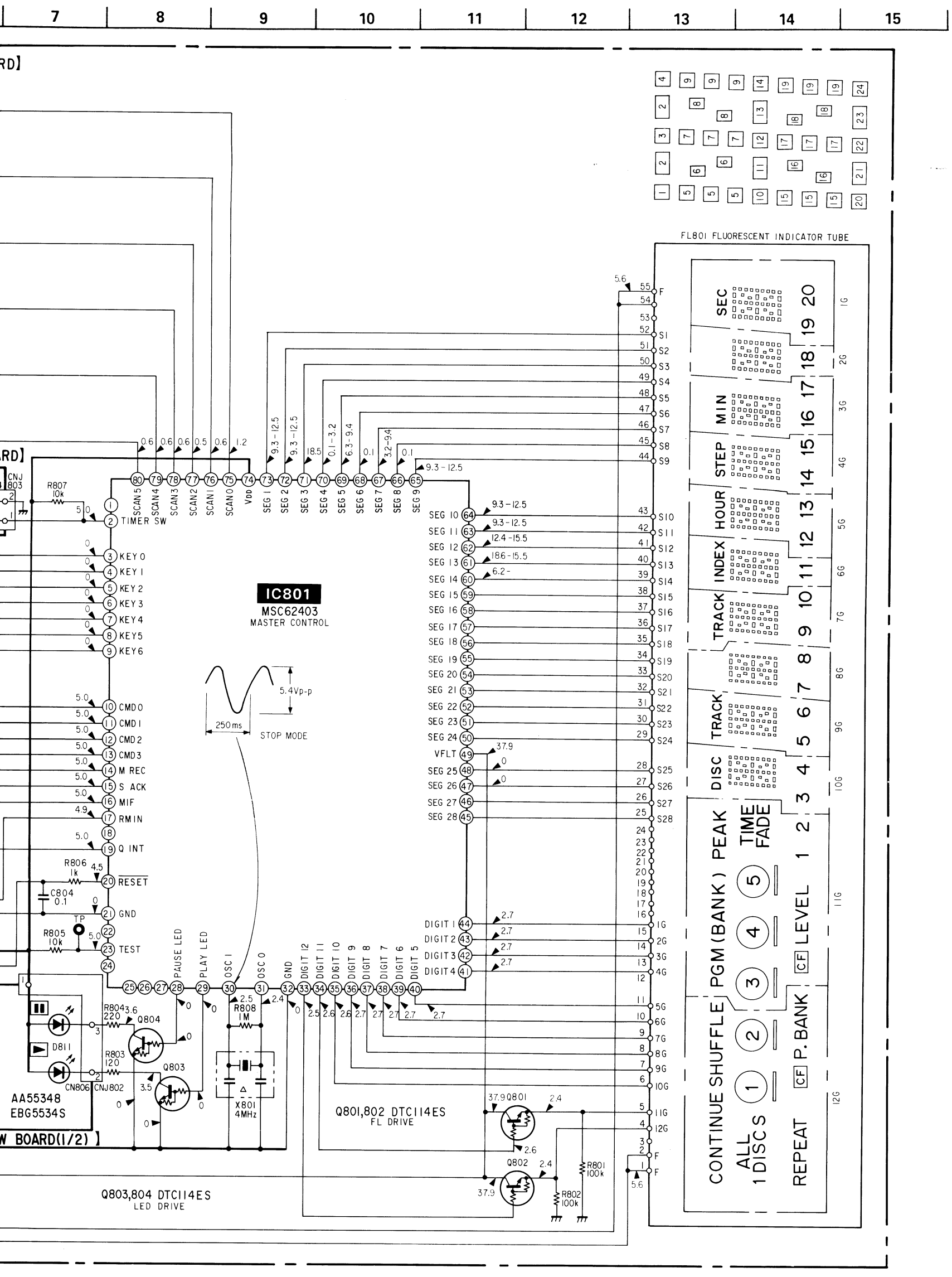
- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

3-8. SCHEMATIC DIAGRAM — DISPLAY BOARD —

• See page 14 for IC block diagram.







Note on Schematic Diagram:

- All capacitors are in μF unless otherwise not 50WV or less are not indicated except for and tantalums.
- All resistors are in Ω and 1/4 W or less unle specified.
- ——— : B+ Line
- Voltage and waveforms are dc with respe under no-signal conditions.
  no mark : PLAY
- Voltages are taken with a VOM (Input impeda Voltage variations may be noted due to no tion tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to no tion tolerances.

SECTION 4
EXPLODED VIEWS

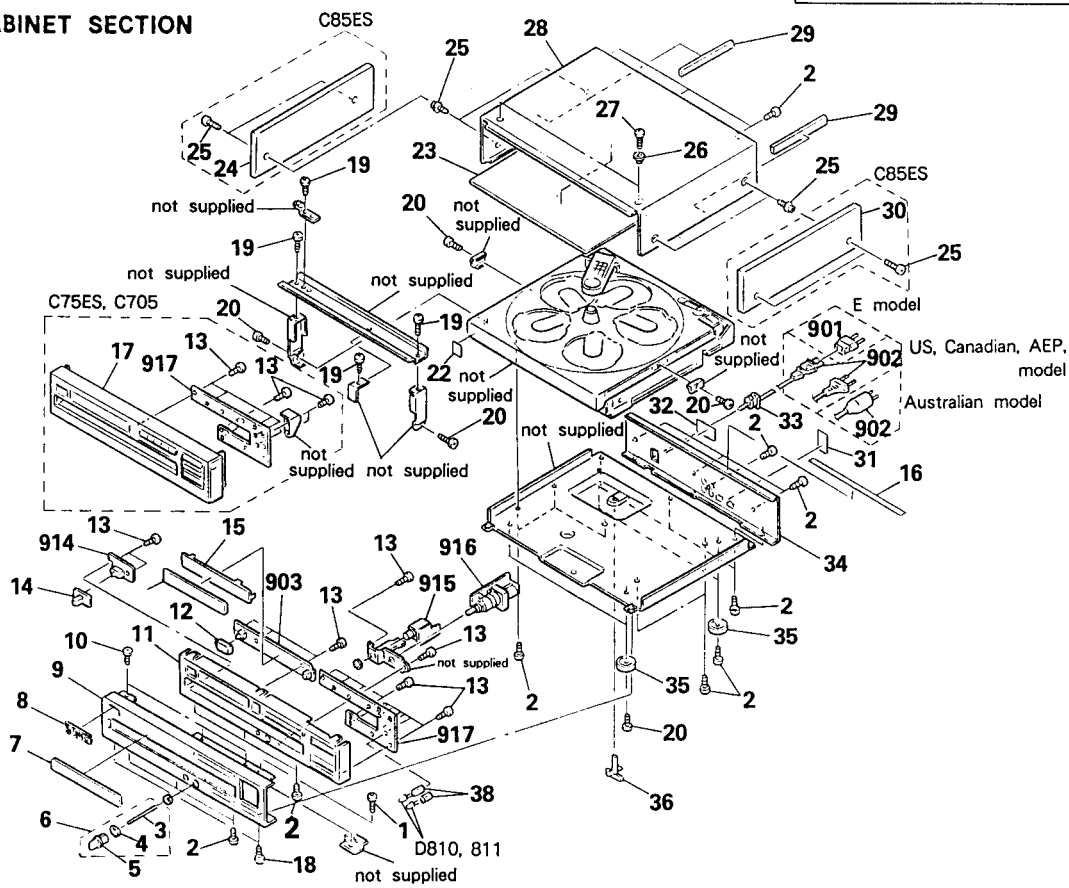
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) ... KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

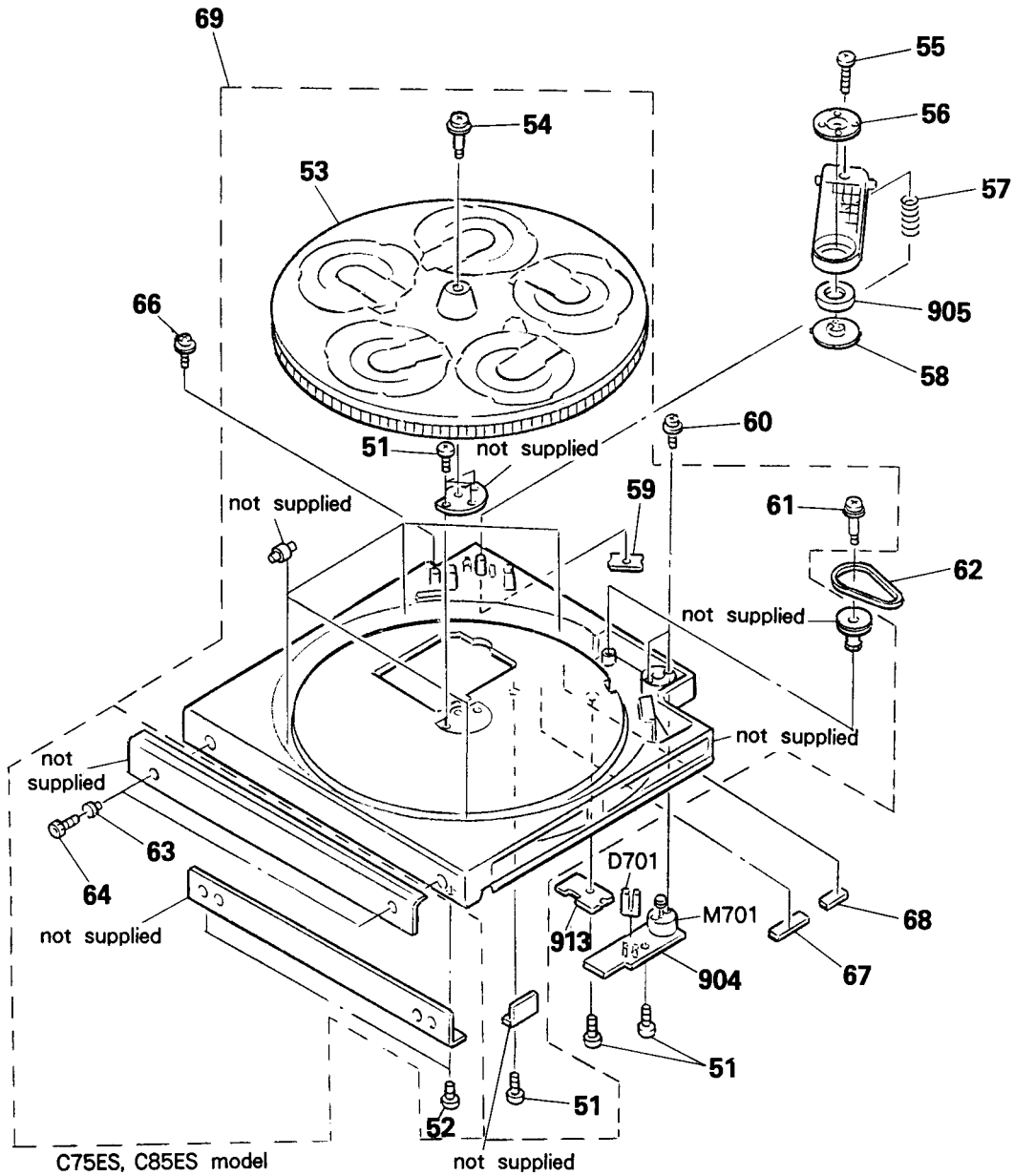
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

4-1. CABINET SECTION



No.	Part No.	Description	Remarks
1	7-682-546-09	(C85ES)...SCREW +B 3X5	
2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
3	4-922-979-01	INDICATOR	
4	4-922-978-01	HOLDER (FIBER)	
5	4-922-977-01	KNOB (HP)	
6	A-4675-298-A	KNOB (HP) ASSY	
7	4-937-926-01	(C85ES)...PLATE (FL), INDICATION	
8	4-908-848-01	(C85ES)...EMBLEM, SONY	
9	4-937-932-01	(C85ES)...PANEL, FRONT	
10	7-682-548-04	SCREW +BVTT 3X8 (S)	
11	X-4924-467-1	(C85ES)...PANEL (BASE) ASSY	
12	4-922-921-01	BUTTON (POWER)	
13	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
14	4-922-518-11	KNOB (TIMER)	
15	*4-924-481-01	BRACKET (FL)	
16	*4-927-653-01	SHEET (F/P)	
17	X-4924-468-1	(C75ES).....PANEL ASSY, FRONT	
	X-4924-469-1	(C705:US,Canadian)....PANEL ASSY, FRONT	
	X-4924-470-1	(C705:AEP,E,Australian) ...PANEL ASSY, FRONT	
18	3-703-685-21	SCREW (+BV 3X8)	
19	7-685-870-01	SCREW +BVTT 3X5 (S)	
20	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
22	*3-703-710-41	STICKER, SONY SYMBOL (12)	
23	A-4675-309-A	(C75ES/C85ES)...REINFORCEMENT (TOP PLATE) ASSY	
24	X-4924-465-1	(C85ES)...PANEL (L) ASSY, SIDE	
25	3-704-366-01	(C75ES/C705)...SCREW (CASE) (M3X8)	
	4-933-446-01	(C85ES).....SCREW (SIDE PANEL)	
26	4-928-025-11	ESCUTCHEON (TOP PLATE)	
27	7-682-547-09	SCREW (M3X6), S TITE, + BTT	
28	*4-937-934-01	CASE	
29	*4-929-561-01	(C75ES/C705)...CUSHION (CASE)	
30	X-4924-466-1	(C85ES)...PANEL (R) ASSY, SIDE	
31	*3-704-217-02	(US,Canadian)...LABEL	
32	*4-885-838-01	(AEP,E,Australian)...LABEL, CLASS 1	
33	*3-703-244-00	(EXCEPT E)...BUSHING (2104), CORD	
	*3-703-571-11	(E).....BUSHING (S)(4516), CORD	
34	*4-934-360-01	(C85ES:US).....PANEL, BACK	
	*4-934-360-11	(C75ES:US).....PANEL, BACK	
	*4-934-360-21	(C705:US).....PANEL, BACK	
	*4-934-360-31	(C705:Canadian).....PANEL, BACK	
	*4-934-360-41	(C705:AEP).....PANEL, BACK	
	*4-934-360-51	(C705:E).....PANEL, BACK	
	*4-934-360-61	(C705:Australian)...PANEL, BACK	
	*4-934-360-71	(C75ES:Canadian)....PANEL, BACK	
	*4-934-360-81	(C85ES:E).....PANEL, BACK	
35	X-4924-463-1	(EXCEPT C705:US,Canadian)...FOOT ASSY	
	X-4924-464-1	(C705:US,Canadian).....FOOT ASSY	
36	4-937-945-01	PLATE (TRANSPORT), LOCK	
37	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
38	4-937-949-01	HOLDER, LED	
901	⚠1-526-007-11	(C705:E).....ADAPTOR, CONVERSION 2P	
	⚠1-526-565-00	(C85ES:E).....AC PLUG ADAPTOR	
902	⚠1-575-104-11	(E).....CORD, POWER	
	⚠1-575-105-11	(US,Canadian)...CORD, POWER	
	⚠1-575-453-11	(AEP).....CORD, POWER	
	⚠1-575-677-11	(Australian)....CORD, POWER	
903	*A-4617-468-A	(C85ES).....MOUNTED PCB, DISPLAY	
	*A-4617-469-A	(C75ES,C705)...MOUNTED PCB, DISPLAY	
914	*1-635-141-11	PC BOARD, TIMER SW	
915	*1-635-144-11	PC BOARD, HP	
916	*1-635-143-11	PC BOARD, VR	
917	*1-635-142-11	PC BOARD, KEYBOARD	

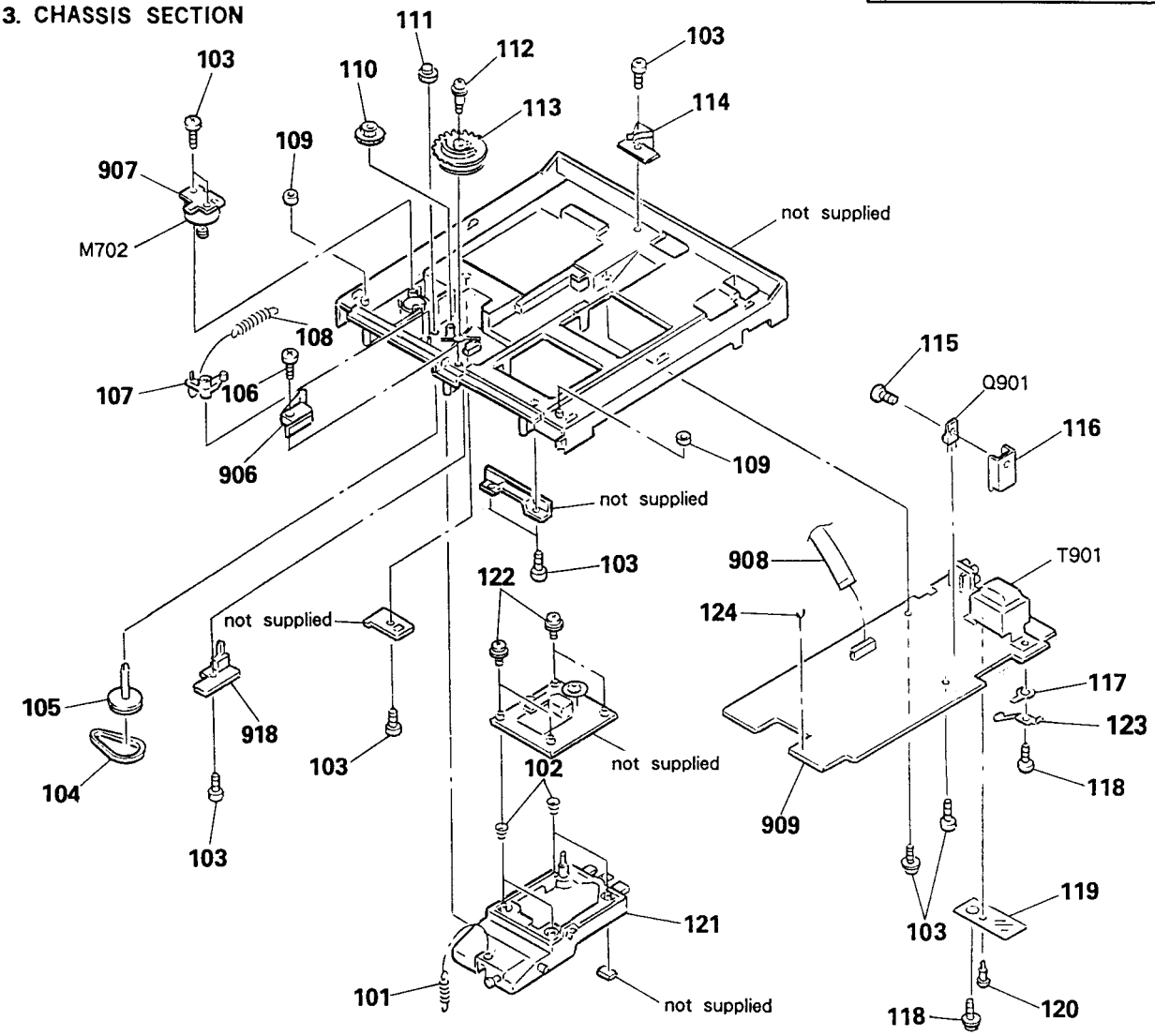
4-2. DISC TABLE SECTION



No.	Part No.	Description	Remarks
51	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
52	4-928-635-01	(C75ES/C85ES)...SCREW, +BV(2.6X8) TAPPING	
53	4-926-383-01	(C705).....TABLE (B), DISK	
	4-926-383-11	(C75ES/C85ES)...TABLE (B), DISK	
54	4-926-384-01	SCREW, STEP	
55	7-682-554-04	SCREW +B 3X25	
56	4-921-029-01	YOKE, CHUCKING	
57	4-926-395-01	SPRING, COMPRESSION	
58	4-921-022-01	PULLEY, CHUCKING	
59	*4-926-388-01	BRACKET (ADJUSTMENT)	
60	7-621-759-35	+PSW, 2.6X5	
61	4-923-597-01	SCREW, STEP	
62	4-926-399-01	BELT	
63	4-934-307-01	(C75ES/C85ES)...ESCUTCHEON	
64	7-683-401-04	(C75ES/C85ES)...BOLT, HEXAGON SOCKET 3X4	
65	7-685-870-01	SCREW +BVTT 3X5 (S)	

No.	Part No.	Description	Remarks
66	7-685-648-79	SCREW (M3X12), TAPPING	
67	4-937-973-01	CUSHION (RUBBER A)	
68	4-937-974-01	CUSHION (RUBBER B)	
69	A-4604-530-A	(C705).....TABLE ASSY, DISK	
	A-4604-533-A	(C75ES/C85ES)...TABLE ASSY, DISK	
904	*1-635-137-11	(C75ES/C85ES)...PC BOARD, TABLE MOTOR	
	*1-635-148-11	(C705).....PC BOARD, TABLE MOTOR	
905	1-452-340-21	MAGNET	
913	*1-635-138-11	(C75ES/C85ES) ...PC BOARD, TABLE TRANSLATION	
	*1-635-150-11	(C705)...PC BOARD, TABLE TRANSLATION	
D701	8-719-970-19	(C75ES/C85ES)...DIODE GP1A52J	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	

4-3. CHASSIS SECTION

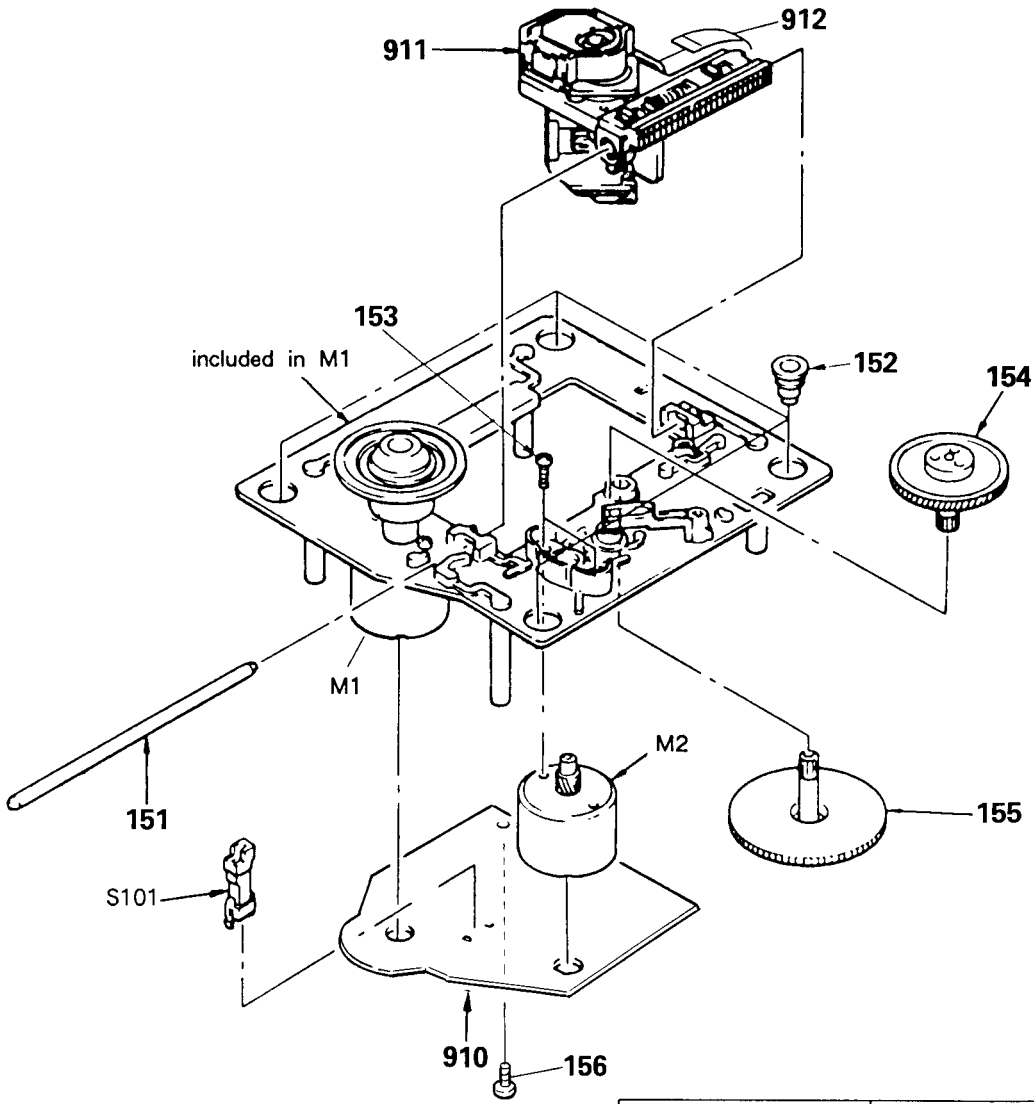


Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks
101	4-937-911-01	SPRING, TENSION	
102	4-917-541-01	SPRING (B)	
103	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
104	4-934-388-01	BELT	
105	4-934-390-01	PULLEY (LOADING)	
106	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT	
107	4-917-519-01	LEVER, SET	
108	4-924-412-01	SPRING (B), TENSION	
109	*4-934-382-01	CUSHION	
110	4-934-381-01	GEAR (LOADING C)	
111	4-934-375-01	GEAR (LOADING B)	
112	4-926-317-01	SCREW, STEP	
113	4-934-391-01	GEAR (LOADING A)	
114	4-937-944-01	SPRING, LEAF	
115	7-682-548-04	SCREW +BVTT 3X8 (S)	
116	*4-875-327-01	HEAT SINK	
117	4-870-539-00	PLATE, GROUND	
118	7-685-647-79	SCREW, TAPPING	
119	*4-934-386-01	SHEET (INSULATING)	
120	3-531-576-11	RIVET	
121	*4-934-373-01	BRACKET (BU)	
122	4-933-134-01	SCREW (+PTPWH M2.6X6)	
123	*4-930-512-01	PLATE, GROUND	
124	*4-352-844-01	PIN, LEAD, COATING	

No.	Part No.	Description	Remarks
906	*1-635-135-11	(C75ES/C85ES)...PC BOARD, DOWN SW	
	*1-635-146-11	(C705).....PC BOARD, DOWN SW	
907	*1-635-139-11	(C75ES/C85ES)...PC BOARD, LOADING MOTOR	
	*1-635-147-11	(C705).....PC BOARD, LOADING MOTOR	
908	1-535-850-11	JUMPER, FILM (WITH TERMINAL)	
909	*A-4617-462-A	(C705:US,Canadian,AEP,Australian) ...MOUNTED PCB, MAIN	
	*A-4617-463-A	(C705:E).....MOUNTED PCB, MAIN	
	*A-4617-475-A	(C85ES:US).....MOUNTED PCB, MAIN	
	*A-4617-476-A	(C75ES).....MOUNTED PCB, MAIN	
	*A-4617-529-A	(C85ES:E).....MOUNTED PCB, MAIN	
918	*1-635-136-11	(C75ES/C85ES)...PC BOARD, UP/OPEN SW	
	*1-635-149-11	(C705).....PC BOARD, UP/OPEN SW	
M702	A-4604-528-A	MOTOR ASSY, LOADING	
Q901	8-729-111-67	TRANSISTOR 2SB1094-L	
SW901	1-571-722-11	SWITCH, VOLTAGE SELECTOR	
T901	⚠1-450-133-11	(US,Canadian).....TRANSFORMER, POWER	
T901	⚠1-450-134-11	(AEP,Australian)...TRANSFORMER, POWER	
T901	⚠1-450-135-11	(E).....TRANSFORMER, POWER	

4-4. OPTICAL PICK-UP BLOCK (BU-5BD3)



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks
151	4-917-565-01	SHAFT, SLED	
152	4-933-126-01	INSULATOR (A)	
153	7-621-255-15	SCREW +P 2X3	
154	4-917-567-01	GEAR (M)	
155	4-917-564-01	GEAR (P), FLATNESS	
156	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
910	*A-4617-371-A	MOUNTED PCB, BD	
911	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A	
912	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M1	X-4917-523-3	MOTOR ASSY, SPINDLE	
M2	X-4917-504-1	MOTOR ASSY, SLED	
S101	1-572-085-11	SWITCH, LEAF	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	⚠1-526-007-11	(C705:E)....ADAPTOR, CONVERSION 2P
	⚠1-526-565-00	(C85ES:E).....AC PLUG ADAPTOR
902	⚠1-575-104-11	(E).....CORD, POWER
	⚠1-575-105-11	(US,Canadian)...CORD, POWER
	⚠1-575-453-11	(AEP).....CORD, POWER
	⚠1-575-677-11	(Australian)....CORD, POWER
903	*A-4617-468-A	(C85ES).....MOUNTED PCB, DISPLAY
	*A-4617-469-A	(C75ES/C705)...MOUNTED PCB, DISPLAY
904	*1-635-137-11	(C75ES/C85ES)...PC BOARD, TABLE MOTOR
	*1-635-148-11	(C705).....PC BOARD, TABLE MOTOR
905	1-452-340-21	MAGNET
906	*1-635-135-11	(C75ES/C85ES)...PC BOARD, DOWN SW
	*1-635-146-11	(C705).....PC BOARD, DOWN SW
907	*1-635-139-11	(C75ES/C85ES)..PC BOARD, LOADING MOTOR
	*1-635-147-11	(C705).....PC BOARD, LOADING MOTOR
908	1-535-850-11	JUMPER, FILM (WITH TERMINAL)
909	*A-4617-462-A	(C705:US,Canadian,AEP,Australian) .....MOUNTED PCB, MAIN
	*A-4617-463-A	(C705:E).....MOUNTED PCB, MAIN
	*A-4617-475-A	(C85ES:US).....MOUNTED PCB, MAIN
	*A-4617-476-A	(C75ES).....MOUNTED PCB, MAIN
	*A-4617-529-A	(C85ES:E).....MOUNTED PCB, MAIN
910	*A-4617-371-A	MOUNTED PCB, BD
911	⚠8-848-144-11	DEVICE, OPTICAL KSS-240A
912	1-575-001-11	WIRE, FLAT TYPE (12 CORE)
913	*1-635-138-11	(C75ES/C85ES) ...PC BOARD, TABLE TRANSLATION
	*1-635-150-11	(C705)....PC BOARD, TABLE TRANSLATION
914	*1-635-141-11	PC BOARD, TIMER SW
915	*1-635-144-11	PC BOARD, HP
916	*1-635-143-11	PC BOARD, VR
917	*1-635-142-11	PC BOARD, KEYBOARD
918	*1-635-136-11	(C75ES/C85ES)...PC BOARD, UP/OPEN SW
	*1-635-149-11	(C705).....PC BOARD, UP/OPEN SW
C101	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C102	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V
C103	1-126-094-11	ELECT 4.7MF 20% 16V
C104	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C105	1-126-154-11	ELECT 47MF 20% 6.3V
C106	1-126-154-11	ELECT 47MF 20% 6.3V
C107	1-126-154-11	ELECT 47MF 20% 6.3V
C108	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C109	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C110	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V

Ref.No.	Part No.	Description
C111	1-131-367-00	TANTALUM 22MF 20% 16V
C112	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C113	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V
C114	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
C115	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
C117	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C118	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C119	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
C120	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V
C151	1-163-019-00	CERAMIC CHIP 0.0068MF 10% 50V
C152	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C153	1-163-006-11	CERAMIC CHIP 560PF 10% 50V
C154	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V
C155	1-163-023-00	CERAMIC CHIP 0.015MF 10% 50V
C171	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C172	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C173	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C174	1-163-038-00	CERAMIC CHIP 0.1MF 25V
C301	1-164-159-11	CERAMIC 0.1MF 50V
C302	1-126-023-11	(C75ES/C85ES)...ELECT 100MF 20% 16V
C302	1-126-101-11	(C705).....ELECT 100MF 20% 16V
C303	1-124-902-00	ELECT 0.47MF 20% 50V
C304	1-136-153-00	FILM 0.01MF 5% 50V
C305	1-164-159-11	CERAMIC 0.1MF 50V
C306	1-106-347-00	MYLAR 0.0015MF 5% 50V
C307	1-136-161-00	FILM 0.047MF 5% 50V
C308	1-164-159-11	CERAMIC 0.1MF 50V
C309	1-161-379-00	CERAMIC 0.01MF 30% 16V
C310	1-161-379-00	CERAMIC 0.01MF 30% 16V
C311	1-164-159-11	CERAMIC 0.1MF 50V
C313	1-164-159-11	CERAMIC 0.1MF 50V
C314	1-161-379-00	CERAMIC 0.01MF 30% 16V
C315	1-162-294-31	CERAMIC 0.001MF 10% 50V
C316	1-162-294-31	CERAMIC 0.001MF 10% 50V
C317	1-162-294-31	CERAMIC 0.001MF 10% 50V
C318	1-164-159-11	CERAMIC 0.1MF 50V
C319	1-164-159-11	CERAMIC 0.1MF 50V
C320	1-164-159-11	CERAMIC 0.1MF 50V
C321	1-126-023-11	(C75ES/C85ES)...ELECT 100MF 20% 16V
C321	1-126-101-11	(C705).....ELECT 100MF 20% 16V
C322	1-126-023-11	(C75ES/C85ES)...ELECT 100MF 20% 16V
C322	1-126-101-11	(C705).....ELECT 100MF 20% 16V
C323	1-123-875-11	ELECT 10MF 20% 50V
C324	1-164-159-11	CERAMIC 0.1MF 50V
C325	1-161-379-00	(C85ES)...CERAMIC 0.01MF 30% 16V

Ref.No.	Part No.	Description
C326	1-164-159-11	CERAMIC 0.1MF 50V
C327	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C328	1-164-159-11	CERAMIC 0.1MF 50V
C329	1-164-159-11	(C705)...CERAMIC 0.1MF 50V
C330	1-164-159-11	(C705)...CERAMIC 0.1MF 50V
C350	1-126-023-11	(C75ES/C85ES)...ELECT 100MF 20% 16V
C351	1-130-487-00	(C75ES/C85ES)...MYLAR 0.022MF 5% 50V
C352	1-124-910-11	(C75ES/C85ES)...ELECT 47MF 20% 50V
C353	1-124-997-11	(C75ES/C85ES)...ELECT 470MF 20% 10V
C354	1-124-997-11	(C75ES/C85ES)...ELECT 470MF 20% 10V
C355	1-136-165-00	(C75ES/C85ES)...FILM 0.1MF 5% 50V
C356	1-136-165-00	(C75ES/C85ES)...FILM 0.1MF 5% 50V
C356	1-164-159-11	(C705).....CERAMIC 0.1MF 50V
C357	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C358	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C359	1-164-159-11	CERAMIC 0.1MF 50V
C360	1-162-294-31	(C705).....CERAMIC 1000PF 10% 50V
C361	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C362	1-124-120-11	(C705).....ELECT 220MF 20% 16V
C362	1-126-024-11	(C75ES/C85ES)...ELECT 220MF 20% 16V
C363	1-124-120-11	(C705).....ELECT 220MF 20% 16V
C363	1-126-024-11	(C75ES/C85ES)...ELECT 220MF 20% 16V
C364	1-123-333-00	(C75ES/C85ES)...ELECT 100MF 20% 16V
C364	1-162-294-31	(C705).....CERAMIC 1000PF 10% 50V
C365	1-123-333-00	(C75ES/C85ES)...ELECT 100MF 20% 16V
C366	1-124-910-11	(C705).....ELECT 47MF 20% 50V
C366	1-162-199-31	(C75ES/C85ES)...CERAMIC 10PF 5% 50V
C367	1-124-910-11	(C705).....ELECT 47MF 20% 50V
C367	1-162-199-31	(C75ES/C85ES)...CERAMIC 10PF 5% 50V
C368	1-162-203-31	(C705).....CERAMIC 15PF 5% 50V
C368	1-162-294-31	(C75ES/C85ES)...CERAMIC 0.001MF 10% 50V
C369	1-162-204-31	(C705)...CERAMIC 16PF 5% 50V
C370	1-161-379-00	(C705)...CERAMIC 10000PF 30% 16V
C380	1-164-159-11	CERAMIC 0.1MF 50V
C381	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C383	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C384	1-164-159-11	(C75ES/C85ES)...CERAMIC 0.1MF 50V
C401	1-130-495-00	(C75ES/C85ES)...MYLAR 0.1MF 5% 50V
C402	1-130-495-00	(C75ES/C85ES)...MYLAR 0.1MF 5% 50V
C402	1-164-159-11	(C705).....CERAMIC 0.1MF 50V
C403	1-123-345-00	(C75ES/C85ES)...ELECT 100MF 20% 35V
C403	1-164-159-11	(C705).....CERAMIC 0.1MF 50V
C404	1-130-495-00	(C75ES/C85ES)...MYLAR 0.1MF 5% 50V
C404	1-162-293-31	(C705).....CERAMIC 820PF 10% 50V
C405	1-130-467-00	(C75ES/C85ES)...MYLAR 470PF 5% 50V
C405	1-130-489-00	(C705).....MYLAR 0.033MF 5% 50V
C406	1-130-489-00	(C705).....MYLAR 0.033MF 5% 50V
C406	1-162-282-31	(C75ES/C85ES)...CERAMIC 100PF 10% 50V
C407	1-162-282-31	(C75ES/C85ES)...CERAMIC 100PF 10% 50V
C408	1-106-359-00	MYLAR 0.0047MF 5% 50V
C409	1-130-472-00	MYLAR 0.0012MF 5% 50V
C410	1-123-332-00	(C705).....ELECT 47MF 20% 25V
C410	1-124-910-11	(C75ES/C85ES)...ELECT 47MF 20% 50V

Ref.No.	Part No.	Description
C411	1-162-199-31	CERAMIC 10PF 5% 50V
C412	1-124-995-11	(C75ES/C85ES)...ELECT 220MF 20% 10V
C412	1-126-176-11	(C705).....ELECT 220MF 20% 10V
C451	1-130-495-00	MYLAR 0.1MF 5% 50V
C452	1-130-495-00	MYLAR 0.1MF 5% 50V
C453	1-123-345-00	(C75ES/C85ES)...ELECT 100MF 20% 35V
C454	1-130-495-00	(C75ES/C85ES)...MYLAR 0.1MF 5% 50V
C454	1-162-293-31	(C705).....CERAMIC 820PF 10% 50V
C455	1-130-467-00	(C75ES/C85ES)...MYLAR 470PF 5% 50V
C455	1-130-489-00	(C705).....MYLAR 0.033MF 5% 50V
C456	1-130-489-00	(C705).....MYLAR 0.033MF 5% 50V
C456	1-162-282-31	(C75ES/C85ES)...CERAMIC 100PF 10% 50V
C457	1-162-282-31	(C75ES/C85ES)...CERAMIC 100PF 10% 50V
C458	1-106-359-00	MYLAR 0.0047MF 5% 50V
C459	1-130-472-00	MYLAR 0.0012MF 5% 50V
C460	1-123-332-00	(C705).....ELECT 47MF 20% 25V
C460	1-124-910-11	(C75ES/C85ES)...ELECT 47MF 20% 50V
C461	1-162-199-31	CERAMIC 10PF 5% 50V
C462	1-124-995-11	(C75ES/C85ES)...ELECT 220MF 20% 10V
C462	1-126-176-11	(C705).....ELECT 220MF 20% 10V
C701	1-162-290-31	CERAMIC 470PF 10% 50V
C702	1-162-290-31	CERAMIC 470PF 10% 50V
C703	1-164-159-11	CERAMIC 0.1MF 50V
C704	1-161-375-00	CERAMIC 0.0022MF 30% 16V
C705	1-161-375-00	CERAMIC 0.0022MF 30% 16V
C801	1-126-177-11	ELECT 100MF 20% 6.3V
C802	1-136-153-00	FILM 0.01MF 5% 50V
C803	1-164-159-11	CERAMIC 0.1MF 50V
C804	1-136-165-00	FILM 0.1MF 5% 50V
C901	1-126-017-11	ELECT 6800MF 20% 16V
C902	1-126-937-11	ELECT 4700MF 20% 16V
C903	1-123-875-11	ELECT 10MF 20% 50V
C904	1-124-927-11	ELECT 4.7MF 20% 50V
C905	1-124-927-11	ELECT 4.7MF 20% 50V
C906	1-161-379-00	CERAMIC 0.01MF 30% 16V
C907	1-126-013-11	ELECT 1000MF 20% 16V
C908	1-126-012-11	ELECT 470MF 20% 16V
C909	1-125-622-11	DOUBLA LAYERS 0.1F
C910	1-124-572-11	ELECT 100MF 20% 63V
C911	1-124-122-11	ELECT 100MF 20% 50V
C912	1-124-927-11	ELECT 4.7MF 20% 50V
C913	1-161-379-00	CERAMIC 0.01MF 30% 16V
C914	1-161-379-00	CERAMIC 0.01MF 30% 16V
C915	1-126-012-11	ELECT 470MF 20% 16V
C916	1-126-012-11	ELECT 470MF 20% 16V
CN101	1-568-796-11	SOCKET, CONNECTOR 22P
CN102	1-568-795-11	SOCKET, CONNECTOR 12P
CN300	1-568-468-11	SOCKET, CONNECTOR 18P
CN301	1-506-615-11	(C85ES).....PIN, CONNECTOR 9P
CN301	1-564-500-11	(C75ES/C705)...PIN, CONNECTOR 7P
CN302	1-564-501-11	PIN, CONNECTOR 8P
CN303	*1-564-508-11	PLUG, CONNECTOR 5P
CN306	1-566-211-11	(C85ES)...PIN, CONNECTOR 4P (CONTROL S)

Ref.No.	Part No.	Description
CN351	*1-564-506-11	PLUG, CONNECTOR 3P
CN353	*1-564-506-11	PLUG, CONNECTOR 3P
CN355	*1-564-509-11	PLUG, CONNECTOR 6P
CN701	*1-564-518-11	PLUG, CONNECTOR 3P
CN702	*1-564-499-11	PIN, CONNECTOR 6P
CN703	*1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P
CN704	*1-565-302-11	PIN, CONNECTOR (PC BOARD) 6P
CN705	*1-566-214-11	PIN, CONNECTOR (PC BOARD) 2P
CN706	*1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P
CN805	*1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P
CN807	*1-569-749-11	PIN, CONNECTOR (PC BOARD) 7P
CN809	*1-565-302-11	PIN, CONNECTOR (PC BOARD) 6P
CN901	*1-564-321-00	PIN, CONNECTOR 2P
D301	8-719-107-94	(C85ES)...DIODE 1SS202-1
D302	8-719-107-94	(C85ES)...DIODE 1SS202-1
D303	8-719-109-87	(C85ES)...DIODE RD5.6ES-B1
D351	8-719-107-94	DIODE 1SS202-1
D352	8-719-114-29	(C75ES/C85ES)...DIODE RD5.1JS-B1
D353	1-807-913-21	(C75ES/C85ES)...DIODE 11EQS04
D401	8-719-107-94	(C75ES/C85ES)...DIODE 1SS202-1
D451	8-719-107-94	(C75ES/C85ES)...DIODE 1SS202-1
D701	8-719-970-19	DIODE GP1A52J
D801	8-719-107-94	DIODE 1SS202-1
D802	8-719-107-94	DIODE 1SS202-1
D803	8-719-107-94	DIODE 1SS202-1
D804	8-719-107-94	DIODE 1SS202-1
D805	8-719-107-94	DIODE 1SS202-1
D806	8-719-107-94	DIODE 1SS202-1
D810	8-719-907-75	DIODE AA5534S (■)
D811	8-719-907-81	DIODE BG55355 (▶)
D901	8-719-200-77	DIODE 10E2N
D902	8-719-200-77	DIODE 10E2N
D903	8-719-200-77	DIODE 10E2N
D904	8-719-200-77	DIODE 10E2N
D905	8-719-200-77	DIODE 10E2N
D906	8-719-109-87	DIODE RD5.6ES-B
D907	8-719-107-94	DIODE 1SS202-1
D908	8-719-107-94	DIODE 1SS202-1
D909	8-719-107-94	DIODE 1SS202-1
D910	8-719-107-94	DIODE 1SS202-1
D911	8-719-107-94	DIODE 1SS202-1
D912	8-719-107-94	DIODE 1SS202-1
D913	8-719-109-87	DIODE RD5.6ES-B
D914	8-719-107-94	DIODE 1SS202-1
D915	8-719-107-94	DIODE 1SS202-1
D916	8-719-107-94	(C75ES/C85ES)...DIODE 1SS202-1
FL801	1-519-584-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-037-33	IC CXA1372Q
IC102	8-759-821-94	IC LA6532M-T1
IC301	8-752-333-31	IC CXD2500Q
IC302	8-759-149-42	IC UPD75512GF-034-3B9
IC303	8-759-822-77	IC LC3564PML-15
IC304	8-752-035-28	IC CXA-1291P
IC305	8-759-977-71	IC GP1F31T (DIGITAL OUT)
IC351	8-752-337-09	IC CXD2554P
IC352	8-759-605-44	(C705).....IC M74HC6004P
IC352	8-759-917-18	(C75ES/C85ES)...IC SN74HCU04N

Ref.No.	Part No.	Description
IC353	8-752-334-77	(C75ES/C85ES)...IC CXD2553S
IC354	8-752-334-87	(C75ES/C85ES)...IC CXD2552Q
IC355	8-759-981-85	(C75ES/C85ES)...IC RC4556D
IC356	8-759-604-86	(C75ES/C85ES)...IC M5F7807
IC401	8-759-982-03	(C75ES/C85ES)...IC RC5532DD
IC401	8-759-989-83	(C705).....IC AD1860N-K
IC402	8-749-982-03	(C705)...IC RC5532DD
IC451	8-759-982-03	(C75ES/C85ES)...IC RC5532DD
IC451	8-759-989-83	(C705).....IC AD1860N-K
IC452	8-749-982-03	(C705)...IC RC5532DD
IC801	8-759-500-57	IC MSC62408-009GS-K
IC802	8-749-920-83	IC GP1U52XB
IC900	8-759-630-21	IC M5290P-16
IC901	8-759-605-43	IC M5231TL
IC902	8-759-604-86	IC M5F7807
J101	1-216-295-00	METAL GLAZE 0 5% 1/10W
J102	1-216-295-00	METAL GLAZE 0 5% 1/10W
J351	1-568-760-11	(C75ES/C85ES)...JACK, PIN 4P(LINE OUT)
J351	1-568-761-11	(C705).....JACK, PIN 4P(LINE OUT)
J701	1-568-519-11	(C705)...JACK, LARGE TYPE (HEADPHONES)
J701	1-568-519-31	(C75ES/C85ES) ...JACK, LARGE TYPE (HEADPHONES)
L351	*1-410-858-11	INDICATOR OUH
M1	X-4917-523-3	MOTOR ASSY, SPINDLE
M2	X-4917-504-1	MOTOR ASSY, SLED
M701	A-4604-585-A	MOTOR ASSY, ROTARY
M702	A-4604-528-A	MOTOR ASSY, LOADING
Q101	8-729-901-01	TRANSISTOR DTC144EK
Q302	8-729-900-89	TRANSISTOR DTC144ES
Q303	8-729-900-61	TRANSISTOR DTA114ES
Q304	8-729-900-61	TRANSISTOR DTA114ES
Q305	8-729-900-61	TRANSISTOR DTA114ES
Q351	8-729-900-61	TRANSISTOR DTA114ES
Q352	8-729-216-13	(C75ES/C85ES)...TRANSISTOR 2SK161GR
Q352	8-729-900-89	(C705).....TRANSISTOR DTC144ES
Q353	8-729-140-96	(C75ES/C85ES)...TRANSISTOR 2SD774-34
Q401	8-729-107-99	TRANSISTOR 2SC3622A-K
Q402	8-729-107-99	TRANSISTOR 2SC3622A-K
Q403	8-729-107-99	TRANSISTOR 2SC3622A-K
Q404	8-729-900-61	(C75ES/C85ES)...TRANSISTOR DTA114ES
Q405	8-729-900-80	(C75ES/C85ES)...TRANSISTOR DTC114ES
Q451	8-729-107-99	TRANSISTOR 2SC3622A-K
Q452	8-729-107-99	TRANSISTOR 2SC3622A-K
Q453	8-729-107-99	TRANSISTOR 2SC3622A-K
Q454	8-729-900-61	(C75ES/C85ES)...TRANSISTOR DTA114ES
Q455	8-729-900-80	(C75ES/C85ES)...TRANSISTOR DTC114ES
Q801	8-729-900-45	TRANSISTOR DTC114EF
Q802	8-729-900-45	TRANSISTOR DTC114EF
Q803	8-729-900-45	TRANSISTOR DTC114EF
Q804	8-729-900-45	TRANSISTOR DTC114EF
Q901	8-729-111-67	TRANSISTOR 2SB1094-L
Q902	8-729-140-96	(C75ES/C85ES)...TRANSISTOR 2SD774-34
Q902	8-729-177-44	(C705).....TRANSISTOR 2SD774-5
Q903	8-729-900-89	TRANSISTOR DTC144ES
Q904	8-729-900-89	TRANSISTOR DTC144ES
Q905	8-729-900-89	TRANSISTOR DTC144ES

Ref.No.	Part No.	Description			
R101	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R102	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R103	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R104	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R105	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R106	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R107	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R108	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R109	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R111	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R112	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R113	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R114	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R154	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R155	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R156	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R157	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R158	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R159	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R171	1-216-001-00	METAL GLAZE	10	5%	1/10W
R172	1-216-001-00	METAL GLAZE	10	5%	1/10W
R173	1-216-001-00	METAL GLAZE	10	5%	1/10W
R174	1-216-001-00	METAL GLAZE	10	5%	1/10W
R301	1-249-417-11	CARBON	1K	5%	1/4W
R302	1-249-417-11	CARBON	1K	5%	1/4W
R303	1-249-417-11	CARBON	1K	5%	1/4W
R304	1-249-441-11	CARBON	100K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-423-11	CARBON	3.3K	5%	1/4W
R307	1-249-423-11	CARBON	3.3K	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-413-11	CARBON	470	5%	1/4W
R310	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-249-429-11	CARBON	10K	5%	1/4W
R312	1-249-429-11	CARBON	10K	5%	1/4W
R313	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-429-11	CARBON	10K	5%	1/4W
R315	1-249-429-11	CARBON	10K	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-249-429-11	CARBON	10K	5%	1/4W
R320	1-249-417-11	CARBON	1K	5%	1/4W
R321	1-249-417-11	CARBON	1K	5%	1/4W
R322	1-249-417-11	CARBON	1K	5%	1/4W
R323	1-249-429-11	CARBON	10K	5%	1/4W
R324	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-249-429-11	CARBON	10K	5%	1/4W
R327	1-249-429-11	CARBON	10K	5%	1/4W
R328	1-247-881-00	CARBON	120K	5%	1/4W
R329	1-249-439-11	CARBON	68K	5%	1/4W
R330	1-247-881-00	CARBON	120K	5%	1/4W

Ref.No.	Part No,	Description			
R331	1-249-439-11	CARBON	68K	5%	1/4W
R332	1-247-880-11	CARBON	110K	5%	1/4W
R333	1-249-440-11	CARBON	82K	5%	1/4W
R334	1-249-441-11	CARBON	100K	5%	1/4W
R335	1-249-440-11	CARBON	82K	5%	1/4W
R336	1-247-878-00	CARBON	91K	5%	1/4W
R337	1-247-878-00	CARBON	91K	5%	1/4W
R338	1-249-440-11	CARBON	82K	5%	1/4W
R339	1-249-440-11	CARBON	82K	5%	1/4W
R340	1-249-393-11	CARBON	10	5%	1/4W
R341	1-249-393-11	CARBON	10	5%	1/4W
R342	1-249-393-11	CARBON	10	5%	1/4W
R343	1-249-410-11	CARBON	270	5%	1/4W
R344	1-249-429-11	(C85ES).....CARBON	10K	5%	1/4W
R345	1-249-393-11	(C85ES).....CARBON	10	5%	1/4W
R346	1-249-429-11	(C85ES).....CARBON	10K	5%	1/4W
R349	1-249-417-11	(C75ES/C85ES)...CARBON	1K	5%	1/4W
R351	1-249-439-11	(C75ES/C85ES)...CARBON	68K	5%	1/4W
R353	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R354	1-247-848-11	(C75ES/C85ES)...CARBON	5.1K	5%	1/4W
R354	1-249-417-11	(C705).....CARBON	1K	5%	1/4W
R355	1-249-393-11	(C705).....CARBON	10	5%	1/4W
R355	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R356	1-247-903-00	(C75ES/C85ES)...CARBON	1M	5%	1/4W
R356	1-249-417-11	(C705).....CARBON	1K	5%	1/4W
R357	1-249-413-11	(C705).....CARBON	470	5%	1/4W
R357	1-249-414-11	(C75ES/C85ES)...CARBON	560	5%	1/4W
R358	1-249-393-11	(C705).....CARBON	10	5%	1/4W
R358	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R359	1-247-826-00	(C705).....CARBON	620	5%	1/4W
R359	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R360	1-247-826-00	(C705).....CARBON	620	5%	1/4W
R360	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R361	1-247-826-00	(C705).....CARBON	620	5%	1/4W
R361	1-249-415-11	(C75ES/C85ES)...CARBON	680	5%	1/4W
R362	1-247-700-11	CARBON	100	5%	1/4W
R363	1-247-700-11	CARBON	100	5%	1/4W
R364	1-249-405-11	(C75ES/C85ES)...CARBON	100	5%	1/4W
R364	1-249-417-11	(C705).....CARBON	1K	5%	1/4W
R380	1-249-417-11	(C75ES/C85ES)...CARBON	1K	5%	1/4W
R401	1-215-444-00	(C75ES/C85ES)...METAL	9.1K	1%	1/6W
R402	1-215-444-00	(C75ES/C85ES)...METAL	9.1K	1%	1/6W
R403	1-215-433-00	(C75ES/C85ES)...METAL	3.3K	1%	1/6W
R404	1-215-433-00	(C75ES/C85ES)...METAL	3.3K	1%	1/6W
R405	1-215-451-00	(C75ES/C85ES)...METAL	18K	1%	1/6W
R406	1-215-451-00	(C75ES/C85ES)...METAL	18K	1%	1/6W
R406	1-249-409-11	(C705).....CARBON	220	5%	1/4W
R407	1-249-419-11	(C705).....CARBON	1.5K	5%	1/4W
R407	1-249-420-11	(C75ES/C85ES)...CARBON	1.8K	5%	1/4W
R408	1-249-419-11	(C705).....CARBON	1.5K	5%	1/4W
R408	1-249-420-11	(C75ES/C85ES)...CARBON	1.8K	5%	1/4W
R409	1-247-891-00	(C705).....CARBON	330K	5%	1/4W
R409	1-249-409-11	(C75ES/C85ES)...CARBON	220	5%	1/4W

Ref.No.	Part No.	Description
R410	1-249-423-11	CARBON 3.3K 5% 1/4W
R411	1-249-423-11	CARBON 3.3K 5% 1/4W
R412	1-249-405-11	CARBON 100 5% 1/4W
R413	1-249-405-11	(C75ES/C85ES)...CARBON 100 5% 1/4W
R414	1-249-405-11	CARBON 100 5% 1/4W
R415	1-249-434-11	(C705).....CARBON 27K 5% 1/4W
R415	1-249-435-11	(C75ES/C85ES)...CARBON 33K 5% 1/4W
R416	1-249-437-11	(C705).....CARBON 47K 5% 1/4W
R416	1-249-439-11	(C75ES/C85ES)...CARBON 68K 5% 1/4W
R417	1-249-439-11	(C75ES/C85ES)...CARBON 68K 5% 1/4W
R417	1-249-441-11	(C705).....CARBON 400K 5% 1/4W
R418	1-247-800-11	(C705).....CARBON 51 5% 1/4W
R418	1-249-402-11	(C75ES/C85ES)...CARBON 56 5% 1/4W
R419	1-249-421-11	CARBON 2.2K 5% 1/4W
R420	1-249-405-11	(C705).....CARBON 100 5% 1/4W
R420	1-249-441-11	(C75ES/C85ES)...CARBON 100K 5% 1/4W
R451	1-215-444-00	(C75ES/C85ES)...METAL 9.1K 1% 1/6W
R452	1-215-444-00	(C75ES/C85ES)...METAL 9.1K 1% 1/6W
R453	1-215-433-00	(C75ES/C85ES)...METAL 3.3K 1% 1/6W
R454	1-215-433-00	(C75ES/C85ES)...METAL 3.3K 1% 1/6W
R455	1-215-451-00	(C75ES/C85ES)...METAL 18K 1% 1/6W
R456	1-215-451-00	(C75ES/C85ES)...METAL 18K 1% 1/6W
R456	1-249-409-11	(C705).....CARBON 220 5% 1/4W
R457	1-249-419-11	(C705).....CARBON 1.5K 5% 1/4W
R457	1-249-420-11	(C75ES/C85ES)...CARBON 1.8K 5% 1/4W
R458	1-249-419-11	(C705).....CARBON 1.5K 5% 1/4W
R458	1-249-420-11	(C75ES/C85ES)...CARBON 1.8K 5% 1/4W
R459	1-247-891-00	(C705).....CARBON 330K 5% 1/4W
R459	1-249-409-11	(C75ES/C85ES)...CARBON 220 5% 1/4W
R460	1-249-423-11	CARBON 3.3K 5% 1/4W
R461	1-249-423-11	CARBON 3.3K 5% 1/4W
R462	1-249-405-11	CARBON 100 5% 1/4W
R463	1-249-405-11	(C75ES/C85ES)...CARBON 100 5% 1/4W
R464	1-249-405-11	CARBON 100 5% 1/4W
R465	1-249-434-11	(C705).....CARBON 27K 5% 1/4W
R465	1-249-435-11	(C75ES/C85ES)...CARBON 33K 5% 1/4W
R466	1-249-437-11	(C705).....CARBON 47K 5% 1/4W
R466	1-249-439-11	(C75ES/C85ES)...CARBON 68K 5% 1/4W
R467	1-249-439-11	(C75ES/C85ES)...CARBON 68K 5% 1/4W
R467	1-249-441-11	(C705).....CARBON 400K 5% 1/4W
R468	1-247-800-11	(C705).....CARBON 51 5% 1/4W
R468	1-249-402-11	(C75ES/C85ES)...CARBON 56 5% 1/4W
R469	1-249-421-11	CARBON 2.2K 5% 1/4W
R470	1-249-405-11	(C705).....CARBON 100 5% 1/4W
R470	1-249-441-11	(C75ES/C85ES)...CARBON 100K 5% 1/4W
R701	1-249-416-11	CARBON 820 5% 1/4W
R801	1-249-441-11	CARBON 100K 5% 1/4W
R802	1-249-441-11	CARBON 100K 5% 1/4W
R803	1-249-406-11	CARBON 120 5% 1/4W
R804	1-249-409-11	CARBON 220 5% 1/4W
R805	1-249-429-11	CARBON 10K 5% 1/4W

Ref.No.	Part No.	Description
R806	1-249-417-11	CARBON 1K 5% 1/4W
R807	1-249-429-11	CARBON 10K 5% 1/4W
R808	1-247-903-00	CARBON 1M 5% 1/4W
R901	1-249-425-11	CARBON 4.7K 5% 1/4W
R902	1-249-425-11	CARBON 4.7K 5% 1/4W
R903 ⚠	1-212-849-00	FUSIBLE 4.7 5% 1/4W F
R904	1-249-423-11	CARBON 3.3K 5% 1/4W
R905	1-249-399-11	CARBON 33 5% 1/4W
R906	1-249-429-11	CARBON 10K 5% 1/4W
R907	1-249-439-11	CARBON 68K 5% 1/4W
R908	1-249-423-11	CARBON 3.3K 5% 1/4W
R909	1-249-417-11	CARBON 1K 5% 1/4W
R910	1-249-429-11	CARBON 10K 5% 1/4W
R911	1-249-433-11	CARBON 22K 5% 1/4W
R912	1-249-433-11	CARBON 22K 5% 1/4W
R914	1-249-410-11	CARBON 270 5% 1/4W
R915	1-249-441-11	(C705)...CARBON 100K 5% 1/4W
RV101	1-238-016-11	RES, ADJ, CARBON 10K (TRACKING GAIN)
RV102	1-238-016-11	RES, ADJ, CARBON 10K (FOCUS GAIN)
RV701	1-241-129-11	RES, VAR, CARBON 10KX3 (LEVEL)
S101	1-572-085-11	SWITCH, LEAF (LIMIT S1)
S701	1-572-379-11	SWITCH, PUSH
S702	1-571-300-11	SWITCH, ROTARY
S703	1-570-157-21	SWITCH, SLIDE (TIMER)
S801	1-554-303-21	SWITCH, KEY BOARD (4)
S802	1-554-303-21	SWITCH, KEY BOARD (BAND)
S803	1-554-303-21	SWITCH, KEY BOARD (ERASE)
S804	1-554-303-21	SWITCH, KEY BOARD (⏏ OPEN/CLOSE)
S805	1-554-303-21	SWITCH, KEY BOARD (FILE)
S811	1-554-303-21	SWITCH, KEY BOARD (2)
S812	1-554-303-21	SWITCH, KEY BOARD (CONTINUE)
S813	1-554-303-21	SWITCH, KEY BOARD (■)
S814	1-554-303-21	SWITCH, KEY BOARD (⏮)
S815	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (4)
S816	1-554-303-21	SWITCH, KEY BOARD (FADER)
S817	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (9)
S821	1-554-303-21	SWITCH, KEY BOARD (MUSIC SCAN)
S822	1-554-303-21	SWITCH, KEY BOARD (TIME)
S823	1-554-303-21	SWITCH, KEY BOARD (▶)
S824	1-554-303-21	SWITCH, KEY BOARD (⏭)
S825	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (5)
S826	1-554-303-21	SWITCH, KEY BOARD (❚❚)
S827	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (10)
S831	1-554-303-21	SWITCH, KEY BOARD (3)
S832	1-554-303-21	SWITCH, KEY BOARD (PROGRAM)
S833	1-554-303-21	SWITCH, KEY BOARD (CHECK)
S834	1-554-303-21	SWITCH, KEY BOARD (DISK SKIP)
S835	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (3)
S836	1-554-303-21	SWITCH, KEY BOARD (LEVEL FILE)
S837	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (8)
S841	1-554-303-21	SWITCH, KEY BOARD (1)
S842	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE)
S843	1-554-303-21	SWITCH, KEY BOARD (CLEAR)
S844	1-554-303-21	SWITCH, KEY BOARD (⏭)
S845	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (2)
S846	1-554-303-21	SWITCH, KEY BOARD (PEAK SEARCH)

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
S847	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (7)
S851	1-554-303-21	SWITCH, KEY BOARD (5)
S852	1-554-303-21	SWITCH, KEY BOARD (REPEAT)
S853	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (>10)
S854	1-554-303-21	SWITCH, KEY BOARD (
S855	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (1)
S856	1-554-303-21	SWITCH, KEY BOARD (TIME FADE)
S857	1-554-303-21	(C85ES)...SWITCH, KEY BOARD (6)
S901	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)
SW901	1-571-722-11	(E)...SWITCH, VOLTAGE SELECTOR
T901 ⚠	1-450-133-11	(US,Canadian).....TRANSFORMER, POWER
T901 ⚠	1-450-134-11	(AEP,Australian)...TRANSFORMER, POWER
T901 ⚠	1-450-135-11	(E).....TRANSFORMER, POWER
X301	1-577-359-21	VIBRATOR, CERAMIC 4.19MHz
X351	1-567-926-11	(C705)...VIBRATOR, CRYSTAL 16.9344MHz
X351	1-577-685-11	(C75ES/C85ES) ...FILTER, CRYSTAL 16.9344MHz
X352	1-577-686-11	(C75ES/C85ES)...VIBRATOR, CRYSTAL 45.15MHz
X801	1-577-358-21	VIBRATOR, CERAMIC 4MHz

ACCESSORY & PACKING MATERIAL

	1-465-400-11	COMMANDER, REMOTE (RM-D706)
	1-558-271-11	(C75ES/C85ES)...CORD, CONNECTION
	1-559-533-11	(C705).....CORD, CONNECTION
	3-704-366-01	(C85ES)...SCREW (CASE) (M3X8)
	3-707-584-01	COVER, BATTERY
	3-751-839-11	(C705:Canadian,AEP,E,Australian) ...MANUAL, INSTRUCTION
	3-751-839-21	(C705:US).....MANUAL, INSTRUCTION
	3-751-839-41	(C705:AEP).....MANUAL, INSTRUCTION
	3-751-867-21	(C75ES/C85ES).....MANUAL, INSTRUCTION
*	3-759-629-15	(C705:AEP)...INSTRUCTION
*	4-930-586-01	(C75ES/C705)...CUSHION (FRONT)
*	4-930-587-01	(C75ES/C705)...CUSHION (REAR)
*	4-934-320-01	(C85ES)...CUSHION (FRONT)
*	4-934-321-01	(C85ES)...CUSHION (REAR)
*	4-937-953-01	(C85ES).....INDIVIDUAL CARTON
*	4-937-954-11	(C75ES/C705)...INDIVIDUAL CARTON

Note:
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